Lectures
ON THE
SURGICAL TREATMENT OF EMPYEMA.

Delivered at the Hospital for Consumption and Diseases of the Chest, Brompton.

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LECTURE I.

(*Concluded from page 54.*)

BEFORE discussing the methods of active surgical treatment one word must be said on the advisability of leaving some cases alone altogether. Nature, as has been hinted, probably effects a cure sometimes in children, when, either from the absence of medical advice or a faulty diagnosis, the presence of pus is never made out; but there are also other conditions in which it is at least doubtful whether surgical interference is of any use, and indeed if it be not actually hurtful. In chronic phthisis an empyema may be present and apparently do no harm for a considerable period, but its evacuation may be followed, apparently as a result, by increased destructive changes in the lung; it may certainly, if the greatest care be not taken, be followed by increased constitutional disturbance from inflammation of the pleural surfaces. These cases should then, I think, be left alone as long as the presence of the fluid is not a source of inconvenience to the patient. There is yet another class of tubercular cases where the empyema is in direct communication with a bronchus. Here, again, the advisability of operating depends upon the amount of inconvenience suffered by the patient, and this depends upon the amount of pus which the patient expectorates. It is well known that, if even a small amount of pus be coughed up from a cavity, it may produce much irritation to the bronchial tubes, and the secretion from them, added to that coming from the cavity, may then reach an enormous amount in the course of the day. I have seen a case of a pulmonary cavity not holding more than an ounce which caused more than a pint of expectoration daily; and another of probably the same nature in which the pus, which was offensive though small in quantity, caused the most intense discomfort and copious expectoration, both of which distressing symptoms were relieved by making the patient lie upon her face, the cavity which had been incised being at the anterior part of the lung. Another consideration is that the pus from the empyema may find its way into the bronchi of the opposite side, or into the comparatively healthy bronchi of the same side, and set up destructive changes there. The deduction, then, seems to be that in cases of this kind we may safely let matters alone if the expectoration be slight and the constitutional disturbance and local inconvenience inconsiderable, but not otherwise; though both surgeon and patient must honestly face the fact that a permanent closure of the opening is not to be expected, and thus, though an annoyance and source of danger may be done away with, the not inconsiderable discomfort of a permanently discharging fistula in the side is substituted for it; for these are not cases in which one would feel justified in attempting the operation for removing the rigid elements of the chest walls, or in which, if they were attempted, any permanent good from them could be anticipated. Let anyone who is doubtful on this head consult Estlander's paper in the *Revue Mensuelle de Médecine et de Chirurgie* (1879, pp. 157 and 885). Another class of cases that should undoubtedly be left alone for a time is that in which the empyema is being expectorated, but in which there is no tubercular disease. I say for a time, because there is no doubt that a certain number of them recover spontaneously, and the same observation applies to those in which the pus has found its way into some other cavity, such as the stomach or bowel; but in all of them it is not wise to wait very long, unless the disease is obviously continually advancing towards a cure. Those that open externally very seldom recover without some form of operative interference.

Having decided that something must be done for a recent empyema, the first question that arises is with regard to aspiration. Is it or is it not to be recommended as a rational means of cure? and if so, in what sort of cases? In the first place, it is an undoubted fact that a certain number of cases recover completely after one aspiration, and a still larger number after the process has been repeated a few times. Amongst our own cases there are, as I have said, two in whom aspiration pretty frequently repeated was followed by a cure, and amongst the children there are no fewer than four out of the thirty cases in whom such a result was obtained. F. P., aged three years and four months (Table I., Case 12), was aspirated once three weeks after the onset of the disease; J. D., aged three years (Table I., Case 10), once nine weeks after; H. B., aged four years (Table I., Case 14), four weeks, and M. C., aged six years (Table I., Case 25), four months after the commencement of the illness; and in all the symptoms disappeared without further interference. And these, I feel sure, are not the only cases of the kind which have been met with at the North-Eastern Hospital in the course of the last few years. Still, it must be owned that in the greater number the reaccumulation has been rapid, and there has seemed to be no tendency towards a cure. The experience, therefore, seems to be much the same as that which follows the use of this method in the treatment of ordinary abscesses. Our own cases were both young men, aged respectively seventeen and twenty-one; both, however, were large effusions, and both were right-sided. G. D. was aspirated three times, fifty-two, twenty-six, and nine ounces being drawn off, with a month's interval between; while W. J. S. was only aspirated once, at which time eighty-nine ounces of thin pus were drawn off; and both appear to have made complete recoveries. It seems, I think, clear that aspiration is most likely to be successful in young patients, who are, it must be remembered, much the most favourable for the free incision; in fact, I think, from studying the statistics one may say that those who were thus cured would have recovered quite as rapidly, if not more rapidly, had they been subjected to this operation. They, of course, escape the inconvenience of an open wound, and the more or less prolonged application of dressings; but they run the risk of having left a mass of cheesy inspissated pus, which may possibly be the cause of future mischief. As, however, this risk is rather hypothetical, and as the aspirator is almost as convenient an instrument as any other for making the usual exploratory puncture, I would always use it in the first place in a young subject, and if the fluid were slow in reaccumulating, and then of a more serous character, and less in amount than before, I should evacuate it again after a short interval. It seems only reasonable not to let the cavity become again fully distended, as this distension must not only have the effect of compressing the lung again, and rendering its chance of expansion smaller; but also of irritating the pleural surface, and so making it less prone to absorb the contents. If, after the first aspiration, the accumulation is rapid, or if the pus is as thick as ever, it is best to proceed to the free incision at once; and in any case it is probably wiser not to repeat the process more than two or three times. Aspiration, of course, tends to expand the lung, but it must not be forgotten that if the free incision has at last to be resorted to, the longer the illness has lasted the smaller is the chance of perfect expansion, not only because the tissue of the organ itself becomes more diseased, but also because it becomes coated with a thicker and thicker layer of pleura.

If the free incision be chosen, we have to decide upon the best place to make the opening. There are two important points to be considered: first, to secure efficient drainage; and, secondly, if possible and compatible with the first, to open a part of the chest near that which is likely to close the last. What this part is it is very difficult to decide; certainly not the lower part of the chest, for this usually closes first, the diaphragm being soon drawn out into contact with the chest walls. The lowest part of the chest is therefore to be avoided, because the drainage-tube must on this account be long to begin with, and as the case progresses will almost certainly act with less and less efficiency, and be introduced with greater and greater difficulty. Sometimes it is found in cases that are not doing well (F. G., Table II., Case 13, for instance) that the lower part does

not close, and an accumulation constantly occurs there. Under such circumstances it is necessary to make an incision behind in the tenth space, or even the eleventh; it is then occasionally followed by the best results, but this is no argument in favour of selecting this spot in the first instance. One might naturally suppose, as our consulting surgeon, Mr. Marshall, has pointed out, that the neighbourhood of the fifth interspace, near the junction of the ribs and cartilages, would be the last region for adhesion to take place between the lung and the chest wall, but it may be doubted if we have evidence enough to show that this is actually what does occur; while we shall see that, in old empyemata, it is the apex itself that offers the greatest difficulties. I believe, then, that any spot about half way between the upper and lower parts of the chest will be found satisfactory so far as the object under discussion is concerned, and, in my experience, that which affords the most satisfactory drainage, both when the body is recumbent and erect, is a little outside and below the angle of the scapula, about opposite the eighth or ninth rib. I do not wish to deny that cases do extremely well if the opening is made further forwards; and if a spontaneous rupture has already occurred in the axilla, or even more anteriorly, I do not hesitate to utilise this opening in the first instance. The spot mentioned is not inconveniently near the angle of the scapula, so that the tube is not interfered with by the movements of the arm, and the wound in this situation is not found to be a source of annoyance to the patient (as has been urged in objection to it by some) when he is lying in bed. The thickness of the tissues which must be traversed in order to reach the chest wall in this situation adds no material difficulty to the operation, even in people of considerable muscular development.

Having fixed upon the spot, we must next consider the method of making the incision. More often than not I am in the habit of excising a portion of a rib, because I find that in most cases this offers the best, if not the only, chance of satisfactorily investigating the cavity with the finger and of securing thoroughly efficient drainage; and while all are agreed that the latter is of the utmost importance, I believe that the former is scarcely less so. Often large masses of curdy material are met with, which are easily detected and extracted by the finger; and sometimes the finger will, by breaking down adhesions, open up loculated cavities which might otherwise have remained unopened, at all events for a time. Nevertheless, I am not so wedded to this procedure as to advocate it in all cases, and if the ribs are sufficiently wide apart—as, for example, in front, in a fairly well-formed chest—I am content with simply incising an intercostal space. It seems wiser also to avoid doing it, if possible, when the pus is fetid, on the theory that absorption of putrid material is more likely to take place when the bone is cut across; but even this objection is, perhaps, more theoretical than real, for in such cases, after a day or two, we almost always find that the bone is bare where the drainage-tube has been in contact with it. I have never seen any evil consequences from the removal of a piece of rib, and I am confident that great advantage is often gained from it, while it is certain that the bone is in a short time reproduced, so that the rib is as strong as before. In the case of J. E., aged one year (Table I., Case 1), who died eleven weeks after the operation, the rib was quite firm; and the same result has been found in other cases where a second operation has been necessary. Here is the rib of F. S., aged twenty-three (Table II., Case 12), removed, if the expression be allowable, five months after it was first excised. You will see that it is completely consolidated, except for the aperture through which the sinus passed, though the thickness of the rib is not much greater than normal. It has been objected that an inconvenient amount of callus is thrown out after this procedure; but I think the specimen now exhibited will convince you that it is scarcely more than occurs when no bone has been removed at all. If no bone be removed, and the case becomes chronic, it almost invariably happens that two spurs of bone are formed on each side of the sinus uniting the rib above with that below; if a piece has been removed, the rib becomes united both with that above and that below. In the latter case, these three ribs are in close contact; in the former, the two ribs are separated by a distance depending on the size of the drainage-tube which has been employed.

I need say nothing about the simple incision of an intercostal space, but will describe a little in detail what seems the simplest way of removal of a piece of rib. In all cases of operations upon the chest, but especially if one side be much disabled, and still more so if there be much expectoration—as, for example, where one is dealing with an empyema which communicates with a bronchus, or with a case of bronchiectasis,—it is important not to turn the patient more than is necessary on to the sound side. For, in the first place, there may arise risks from the anæsthetic, the increased impairment of the respiratory functions adding the toxic effects of carbonic acid to those of chloroform or ether, and so constituting a real danger to the patient; and, in the second place, such a position increases the probability of the expectorated matter finding its way into the bronchi of the sound lung, and so producing alarming symptoms or actual asphyxia. A case in point, which also illustrates the reason why chloroform is better than ether for such operations, was that of a girl who had one lung much damaged by an empyema which she was expectorating. Ether was administered, and the combination of the "ether bronchitis" with the entrance of pus into the bronchi of the sound lung, added to the already impaired action of the latter, brought her into such a serious state that we were obliged to draw blood from the arm and resort to other active measures in order to keep her alive. We are having made here a high table with flaps on each side to draw aside in the position which will be occupied by the side of the chest, by the employment of which we shall be enabled, whilst sitting down and operating from below, to explore or open an intercostal space far back without turning the patient over at all, and thus avoid the dangers to which I have referred. Of course such a table cannot be always at hand; but if it be not, the same result may be obtained almost as well by bringing the patient to the very edge of the table or couch, and even allowing him to project a little beyond it. Mr. R. W. Parker has employed cocaine with excellent results, and the suggestion seems a most valuable one. The use of a general anæsthetic may be avoided by freezing the part; but it is doubtful if these methods will answer for anything more severe than the simple incision of an intercostal space.

It is also advisable not to raise the arm more than to a right angle with the body; or at least, if this be done, to note the extent to which the skin is drawn up by doing so, and then to pull it down before making the incision through the soft parts. If this precaution be not taken the opening will be found to be valvular, and much inconvenience may arise at a later date in the introduction of the drainage-tube. Should this difficulty, however, arise, it may be obviated by making a second incision upwards at right angles to the first. Such an incision gives more room, and it is not a bad plan to adopt it to start with, especially if the patient be very fat or muscular, rounding off the corners of the small flaps afterwards. The skin being then steadied by the finger and thumb pressed upon the rib, the first incision is carried down to the bone for a distance of two or three inches. After any superficial vessels are secured, the periosteum is divided and raised from the bone, as may most conveniently be done by means of an elevator with a cross handle (an instrument introduced from Germany). The periosteum on the deep surface of the rib may readily be separated by a blunt and slightly curved elevator, which is then thrust beneath the rib to raise it beyond the level of those above and below it. This allows room for the introduction of the blade of a pair of ordinary string-cutting pliers, or that of a pair of forceps which I have had made, one blade of which is blunt and the other sharp, both being slightly curved. The cutting pliers will divide most ribs, but occasionally it is more convenient or even necessary to use a small saw. The rib is divided in front of and behind the elevator, and from an inch and a half to two inches are removed, leaving the periosteum and pleura uninjured and exposed. The knife is then carried through these structures, and, the parts being clearly seen, there is no difficulty in avoiding the intercostal artery, but should this be cut it is now quite easy to secure it and to apply a ligature at once. The opening in the pleura may be made quite small if desired, and increased by introducing the finger or a pair of closed dressing forceps, the blades of which are subsequently expanded. The finger is then introduced into the cavity and a thorough exploration made, and the pus, if aseptic, is allowed to escape under cover of a piece of rag soaked in carbolic lotion, which is placed over the wound. If it be desired to prevent the entrance of air into the chest, a tube with a thin

caoutchouc valve, such as that I now show, may be employed; or a still simpler method (of which I have no experience) may be employed—viz., the tying over the end of the tube a sort of petticoat arrangement of linen. The valved tube will work even though the opening be of some size; but for the petticoated tube to be efficient it is necessary that the opening should be only just large enough to fit it accurately. Neither arrangement will, it need not be said, answer well in cases where there are thick flakes mixed with the pus, but when such do not exist the valved tube answers admirably. This was shown in W. B. (Table II., Case 5), where the pus at the first opening was remarkably thick. On the third day, on making the patient expire forcibly, a drop or two of perfectly clear serum alone escaped—a beautiful illustration of the fact that the so-called "pyogenic membrane," if subjected to no irritation either from tension or putrefaction or any other cause, ceases at once to form pus, but secretes only serum.

I feel convinced that the introduction of the antiseptic principle into surgery, coupled with the freedom of drainage which we now always secure, has done much to render the treatment of empyema less formidable than it used formerly to be. I would strongly advocate the employment of the antiseptic treatment, even to its most minute details, for such cases; though freely acknowledging that some putrid cases do quite as well as those in which the pus is sweet. It is a matter of common experience that the opening of an empyema which has not previously putrefied without antiseptic precautions often leads to very serious symptoms, in the same way as severe septic poisoning follows incision of a psoas abscess under similar circumstances, because a large surface and a surface favourable for absorption becomes bathed with a highly putrid material. In the case of an already putrid empyema, nothing but good can come from allowing the septic material a free exit; while in the case of a sweet one tension is certainly removed, but a potent source of irritation—namely, putrefaction—is admitted. Thus the effect of simple incision produces much more serious results in the former than in the latter case. On the other hand, it cannot be denied that septic empyemata often, if not generally, produce much more serious symptoms than aseptic ones. We have had two examples here where putrefaction followed the introduction of the aspirator needle—H. B. (Table II., Case 16) and J. F. (Table II., Case 18), in both of whom high fever and other signs of septic poisoning were present. A. C. (Table II., Case 1), in whom the putrefaction originated from within, was also much more ill than children with chests full of such pus are usually found to be. I have notes of at least three other cases of putrid empyema which proved rapidly fatal.

One of these cases was a boy, aged eight, at University College Hospital, who had only been ill for a month before he was admitted with a chest full of the most offensive pus, and a fluctuating swelling over the second interspace, due to perforation. This was incised; but the boy, who was almost *in extremis* from septicæmia on his admission, died two days afterwards, and it was found post mortem that there was a gangrenous area on the inside of the chest walls corresponding to the upper six ribs, so that the muscles were in many parts dissected, whilst in others they were covered by a sloughy membrane. There was a second point of ulceration besides the actual point of perforation in the second space, and there were four in the third (one of which was complete), four in the fourth (one of which was complete), and one in the fifth space. Such a condition is never met with in aseptic cases.

Another was that of a man aged forty-two years at University College Hospital, whose illness began four days before admission. His chest, which had been previously tapped, was freely incised on the ninth day after the attack, but his temperature and pulse never fell, and he died of septicæmia on the sixteenth day. A small abscess of the lung was found post mortem, the rupture of which had no doubt caused the empyema.

Another case, which I saw with Dr. Thane, was that of a young strumous man between twenty and thirty years of age. His illness began as pneumonia, and when seen the left pleura was distended with the most putrid pus imaginable. Though he improved after the incision, he never thoroughly rallied, and died three weeks afterwards with symptoms of septicæmia and pleurisy on the opposite side.

I mention these cases because they are typical ones of their kind, and are not very uncommon. They should be borne in mind when the assertion is made that putrid cases do as well as aseptic ones. Such results do not, as far as my experience goes, occur in aseptic cases, nor do they ever follow the antiseptic incision if the treatment be carefully carried out.

The causes of putrid empyemata are always, or almost always, gangrenous abscess of the lung, or the introduction of an improperly purified needle, or the rupture of an empyema into a bronchus. In the last instance there will be expectoration of pus from the pleura; but it is an interesting fact that it does not follow that an empyema which is being expectorated will contain putrid pus, the pus sometimes remaining sweet if the communication with the air passages be small and tortuous. Such cases often do extremely well, the expectoration ceasing immediately after incision, and the case following a favourable course. Even if there be a certain amount of smell, I think it is wise to employ the antiseptic treatment for a few days at least, as it sometimes happens, as in the case of abscesses that smell, but are not actually putrid elsewhere, the discharge soon becomes sweet, and the case pursues a typical course. If, however, the discharge continue offensive, a moist dressing, frequently changed (boracic fomentation or an oakum poultice), is much the best dressing from every point of view.

We have thus dealt with the methods to be employed in the primary treatment of an ordinary case of empyema, but a few points remain to be spoken of.

1. If antiseptic dressings are used, they should be continued to the very end of the case. Many a promising case has ultimately become chronic through neglecting this rule.

2. The tube in adults must be retained until the discharge has almost stopped. In ordinary cases, in children, it may usually be removed at the end of a fortnight or thereabouts. But both of these rules are liable to exceptions, especially the latter if the discharge be at all copious. If after the removal of the tube there be signs of accumulation, which will be, not increased discharge showing externally, but a rise of temperature with general malaise and thoracic or abdominal pain, no time should be lost in dilating the sinus and reintroducing the tube. If this be delayed the recent adhesions quickly give way, and much time is lost.

3. As soon as the general health will allow, patients with empyema seem to do better if permitted to get up, the change of position and the movements of the chest apparently aiding the expulsion of the contents of the pleural cavity.

4. Is it wise to employ injections?

5. What is to be done if the case becomes chronic?

The last two questions will be dealt with in the next lecture.

Clinical Lecture

ON A CASE OF

BELL'S PARALYSIS OF CENTRAL ORIGIN.

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GENTLEMEN,—I shall to-day direct your attention to a very interesting case of Bell's paralysis of, I believe, central origin; and for the purpose of comparison I shall picture for you another case of ordinary Bell's palsy from exposure to cold.

The patient suffering from ordinary Bell's palsy, you will observe, when he smiles, smiles but on one side; the paralysed side looks sober and serious. The zygomatics on one side will not contract; whistling to him is an impossibility; fluids will often run out of his mouth; and owing to this utter want of power on the part of the orbicularis oris, he can neither open nor close his mouth properly. Owing to implication of the buccinator, food often accumulates between the cheek and the teeth, and when he blows the cheek becomes much distended from the same cause. An expression of surprise or a frown can only be seen on one side, as the occipito-frontalis and corrugator supercilii are both paralysed. All the muscles of expression, all the muscles supplied by the portio dura of the seventh, are paralysed. The orbicularis palpebrarum cannot contract

so the eye is kept open and exposed, and when the patient is told to close the eye he turns it up so that the pupil becomes invisible and nothing but the white is seen, and he thinks that the eye is closed. Even the tensor tarsi cannot contract, and epiphora ensues. Thus the whole right side of the face is an expressionless mask, and yet the left side is full of vivacity, and conveys to you very plainly the workings of the brain.

The next case I have to bring before your notice is a very different one—is one from central origin, and but very seldom met with. The celebrated Dublin physician, Dr. Graves, in his work on Clinical Medicine, says, "I have seen two cases of seizure, evidently apoplectic, in which the paralysis that followed the seizure was seated in the muscles supplied by the portio dura." And, again, Trousseau says, that "when examined with great care, using Burq's dynamometer, these patients invariably display slight want of power in the arm or leg, of which they are not conscious"; and adds in another part, "It is conceivable, therefore, that if a small hæmorrhage occurred in a very limited spot of the pons it would give rise to the symptoms of Bell's paralysis exclusively. But such cases are so very rare that, in the course of a very long practice, I have not yet met with a single instance of the kind."

This patient is a married man, aged twenty-four, a tanner by trade. His family history is good. When seventeen years of age he fell down the cellar steps and injured the left side of his head. Until five weeks ago, for two years and a half he has suffered from epileptic fits, two or three every month. Five weeks ago he fell down in the street in a state of insensibility. He was carried home, soon recovered, but suffered from headache for three weeks. About two weeks ago, one morning his friends noticed that his face seemed peculiar, and laughed at and chaffed him. No treatment whatever was adopted for one week, when he presented himself at the hospital as an out-patient. You see that all the muscles supplied by the portio dura are paralysed, but not completely. The right orbicularis palpebrarum is not much affected, but closes a little later and less firmly than the left. There is also slight epiphora, showing implication of the tensor tarsi. The point of the uvula is turned towards the paralysed side and drawn by its base to the left. The soft palate and arches hang into the mouth, or, in other words, the left side is more arched and roomy. If you apply a weak acid solution to the right side of the tongue, it gives rise to a burning sensation, but no taste, unlike the other side. Hearing on both sides is normal. The occipito-frontalis and corrugator are partially paralysed, and his speech is not natural owing to implication of the buccinator and orbicularis oris.

I should like to draw your attention to the following interesting facts relating to this case:—1. The temporal masseter and pterygoids supplied by the motor branch of the fifth, and the muscles of the tongue supplied by the hypoglossal, are not affected in this case as they are often in hemiplegia, where so frequently the tongue, when protruded, points to one side. This shows that the portio dura only is affected, as in Bell's, wherever the lesion may be. 2. As in facial paralysis with hemiplegia, the orbicularis palpebrarum has not been much paralysed; in Bell's it is. 3. The paralysis of the muscles of the face is not quite complete, and contractility not quite gone, as in hemiplegia. In Bell's the paralysis is generally complete, and electric contractility gone. 4. The paralysis of the uvula and soft palate on the right, and impairment of the sense of taste, show that the great petrosal and chorda tympani nerves are involved, and that the mischief is probably above the part where they are given off. In this case we have not had any ear symptoms whatever, neither intensity of hearing nor obtuseness, so the disease is probably higher than the bony canal. 5. This patient has suffered for two years and a half from about three epileptic fits a month, probably from some central cause. He has not had an attack now for five weeks, but at the end of three weeks from the last attack this paralysis came on. This, to my mind, decidedly points to some central cause, especially when taken in conjunction with the other symptoms. 6. Ever since the attack came on his memory and his mental powers generally have been very much impaired, whereas they were not so before. You will observe that I have come to the conclusion that it is of central origin, not for one reason, but for many—viz., because the electric contractility of the muscles has never been lost, the paralysis has never been complete, the orbicularis palpebrarum has been but slightly paralysed, and the implication of the chorda tympani and petrosal nerves, without any evidence whatever of ear mischief, rather points to central cause; and the epilepsy before and mental symptoms after the attack of paralysis also aid us.

ON INVERSION WITH INFLATION IN THE CURE OF INTUSSUSCEPTION;

WITH A SUCCESSFUL CASE.

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ACUTE intussusception in childhood must ever be regarded as an exceedingly dangerous condition, but an early recognition of the symptoms will much lessen its dangers, by bringing the case within the range of surgical treatment before adhesions may have taken place, or irreparable damage have occurred to the intussuscepted bowel. It is one of those conditions I would claim as surgical from the onset, inasmuch as the only efficient treatment must be surgical, and it is strictly comparable in this respect to the obstruction occasioned by strangulation in hernia. To my mind, the cases appeal for relief in precisely the same terms as do those suffering from strangulated hernia; and it is grievous to have to reflect upon the valuable time often wasted in palliative treatment, and the lack of promptitude in applying surgical aid, not to speak of the failure to penetrate the shadow of dangerous symptoms which overhangs and enshrouds these unfortunate infants. I have even heard it calmly discussed whether it might not be justifiable to wait patiently till nature might detach the intussuscepted bowel, as if this were a common event or as favourable a result as could be anticipated. I have myself already been in the profession long enough to have witnessed a complete change in the relation of operative treatment to hernia. It is no longer considered a disgrace to fail to reduce a hernia by taxis; and the pounding and crushing which I witnessed as a student have, I trust, now disappeared from surgery. No wonder that, after all the time wasted with hot baths, opium, poultices, and ice, with periodical kneading of the tumour, the dreaded operation, when at last performed, was often unsuccessful. What has brought about this change is the acknowledgment that the danger lies, not in the operation, but in the duration of the strangulation, and in the rough treatment to which the bowel may have been subjected. I look forward to the time when the treatment of intussusception will be in every respect as successful as that for hernia, but this improvement must come about by an earlier recognition of the gravity of the symptoms and a greater promptitude in the application of the means available for obtaining reduction. During the past ten years I have often advised students to disencumber their minds from the general unessential symptoms of strangulated hernia with which word-painters depict in eloquent terms the condition of the patient, and to fix indelibly in their memories three salient signs of strangulation—viz., (1) an irreducible hernial tumour devoid of impulse, (2) persistent vomiting, and (3) constipation. With these signs present, there is no room for doubt or excuse for delay. There should be no speculation upon what other conditions might give rise to the vomiting and constipation. The surgeon's duty is to concentrate his attention upon the hernial tumour and to relieve any constriction that may be there present before having regard to other possible contingencies. The signs of acute intussusception in children—another form of mechanical obstruction—are, as a rule, equally clear, and may be formulated with equal precision—viz., (1) vomiting, (2) constipation, (3) passage of blood per rectum, and (4) the presence of a tumour to be felt through the abdominal wall and occasionally per rectum. With these symptoms present, there is nothing to gain, but everything to be lost by hesitation or delay. There is a mechanical obstruction present, which must be overcome by mechanical means, and medical treatment in such grave crises is apt to raise in a surgical mind a feeling allied to contempt. The administration of purgatives can only do harm, and anodynes will but obscure the danger by clouding the acuteness of the symptoms. The invaginated bowel is

impacted, swollen, and congested. Every hour lessens the freedom of the circulation through it, and the peritoneal surfaces which lie in contact will soon become inflamed and pour out lymph that will glue the introceding bowel to that which surrounds and constricts it. Before this has happened, or at least before the lymph can have so far organised as to withstand gentle traction, surgical interference should have completed its task.

What right have we to stand by with folded hands and watch the efforts of Nature to give relief when we possess such efficient means for cure as are altogether beyond her reach? The prejudice of friends, it is true, is opposed to the means we advocate as essential, nor will they ever give the credit to their surgeon of an unequivocal saving of life, which they would be only too ready to accord to the so-called faith-healers, or such unprincipled men as fill their own pockets whilst affecting to make cures through the aid of the miraculous. From time to time I see cases reported of recoveries from intussusception after the casting off of so many inches, or it may be feet, of intestine; but I read these with pain, for I feel they ought not thus to have been left to recover; and I know their convalescence is seldom permanent, and that there is a prospective early death from stricture at the seat of separation. At best it is only one out of a vast number which can make an imperfect recovery without surgical aid. To hesitate, dally, postpone, is to trifle with Nature. A great, a terrible, and altogether unequal struggle may be carried on to open up a free way from within, when a prompt and simple surgical means from without may easily bring about complete relief.

The means we have at our disposal are—first, inflation with inversion; secondly, should this method of reduction fail, abdominal section, with the object of withdrawing the invaginated bowel; or, finally, when this is impossible, enterectomy may be entertained. I am strongly of opinion that, if the cases are seen sufficiently early, the first of these methods, when properly applied, will seldom fail. The principal object of this paper is to advocate the inversion of the patient during the time inflation is being performed—an addition and aid to the reduction by inflation which occurred to me after failing to reduce an invagination by inflation alone. My experience of the value of inversion during taxis for hernia in children led me to adopt this position as an adjunct to inflation in the case presently to be recorded. Intussusception and hernia, which I have been trying to show have so much in common, are here again brought into parallel lines in the course of treatment. In both the object of the inversion is to cause the intestines to gravitate towards the upper part of the abdomen, and the effect in the case of intussusception will be to straighten the lower part of the bowel, so that the air forced into the rectum will act more directly upon the plug of intestine closing the lumen of the gut. It has been advocated by some to distend the bowel with water in lieu of air, but against this practice I hold a very decided opinion. There are two strong objections to the use of water. In the first place, owing to its weight it exerts much too strong lateral pressure for the intestine safely to bear, and I have found it is easy to rupture the bowel after death by forcing in water. Secondly, should reduction have been accomplished, the contact of a large quantity of water with the lower bowel is apt to increase the tendency to subsequent diarrhœa. Air, on the other hand, is a natural occupant of the intestinal canal, and, whilst its pressure is of the gentlest, its presence excites no unnatural peristaltic action.

The manner in which inflation should be performed is as follows:—An ordinary bellows is connected with a gum-elastic enema tube by means of a piece of rubber tubing, which is firmly wired at either end. Around the base of the enema tube lint should be wrapped, so as to make a conical and air-tight base. The tube is inserted about three inches into the rectum, and the anus closed by the conical plug of lint. Further to guard against the escape of air back through the anus when inflation is commenced, an assistant should press the edges of the buttocks firmly together. It is very important that an anæsthetic should be administered up to the stage of muscular relaxation before the operation is commenced, otherwise the forcible contraction of the abdominal muscles will leave the operator little chance of effecting his object. As soon as anæsthesia is complete, the child should be seized at the ankle and knee on either side, and be raised vertically with his back to the operator, the head being allowed to rest on a pillow. The enema-tube is next inserted, and the anus closed in the way directed. An assistant now places his hand over the tumour in the abdomen to watch the effect of the operation, and the inflation is commenced. The air is at first forced slowly in, and the effect watched through the abdominal wall. The upper part of the rectum or sigmoid flexure will probably be seen to swell up, and the tumour may be noticed to change its position somewhat. If the tumour show little tendency to yield, more rapid action of the bellows may be employed. How, then, are we to know that the intestine has been reduced, and there is no longer occasion to continue the operation? There are three indications of the reduction of the bowel: (1) The assistant whose hand is over the tumour will feel this gradually sink away and be lost; (2) a gurgle of air will at the same time be felt by the assistant, and often heard by the bystanders; (3) the whole abdomen becomes suddenly and uniformly distended and tympanitic. When these signs of reduction have occurred, the enema-tube may be withdrawn and any compressed air be allowed to escape, and the surgeon may leave the case with a feeling of contentment that he has almost certainly saved a life. The after-treatment consists in limiting the diet to milk and ice, and in administering stimulants if there be a tendency to collapse. Small doses of opium may also be given to relieve pain and check any tendency to diarrhœa.

The following is a careful report by Mr. H. W. Drew of a case in which the means advocated were successfully employed on the third day of the intussusception.

Charles T——, aged six years, was admitted into Guy's Hospital, under the care of Dr. Pavy, for abdominal pain and vomiting, on June 22nd, 1885. In the absence of Dr. Pavy he was seen by Dr. Carrington, who, after determining the nature of the case, sent for Mr. Clement Lucas. From the history obtained from the friends it appeared that the child had been well up to and including Friday, June 19th. On Saturday morning, June 20th, he began to complain of pain in the abdomen and sickness. These symptoms continued and increased up to the time of his admission on Monday evening, June 22nd. The condition of the bowels during this period was not positively known. He appears to have gone to the watercloset two or three times between Saturday and Monday, but whether anything was passed was not known. He vomited just prior to his admission and the vomit was yellow. On examination he complained of great pain over the abdomen, but there was only slight tenderness. In the left iliac region, corresponding to the region of the sigmoid flexure, a fusiform tumour, four or five inches in length and about two in breadth, was very readily felt. It was dull on percussion, but not hard. The region of the cæcum was markedly empty and dull on percussion, and the fingers sank down, without resistance, into the right iliac fossa. The rectum was quite empty, but high up there was a transmitted feeling of resistance. The tongue was somewhat furred, but there was not much general disturbance. Pulse full, about 100 per minute, rather irregular; heart-sounds normal; apex-beat in the fourth space half an inch below and to the inner side of the nipple; dulness normal; respiratory system normal. Soon after admission, the child passed per rectum about two ounces of red fluid blood. When Mr. Clement Lucas arrived the patient was placed under an anæsthetic. The house-surgeon commenced to administer chloroform, but as the pulse seemed to fail somewhat, ether was substituted. The patient being fully under the influence of the anæsthetic, an enema-tube connected with a bellows was inserted into the rectum and inflation commenced. A coil of intestine was at once noticed to rise and become distended to the right of the median line, as if the sigmoid flexure or rectum were pushed over by distension. Inflation was continued for about five minutes without further effect, the patient lying meanwhile in the recumbent position. A change was now made in the position of the patient, who was held up vertically with his head downwards. Inflation was again commenced, and in about three minutes Dr. Carrington, whose hand was on the tumour, felt it resolve itself with a gurgle. The operation was then suspended, and a suppository, containing a quarter of a grain of morphia was placed in the rectum. Milk diet with ice was ordered, and the following prescription every six hours: Tincture of opium, two minims; chloroform water, one drachm.—June 23rd: He passed a good night, and this morning is free from pain. No tumour can be felt in the abdomen, which seems rather full, but there is no tenderness. A little more blood was passed, but no fæces. He has taken

a pint of milk and seems to enjoy it. Temperature 98·8°; pulse 116. He has not passed any urine since he came in. In the evening, as there was still retention and the bladder could be distinctly felt above the pubes, some chloroform being administered to prevent struggling, a catheter was passed. Twelve ounces of urine, acid, and of specific gravity 1015, were drawn off.—24th: He has again slept well, and this morning complains of no pain. There is no swelling of the abdomen. He has had no motion, and there is still complete retention of urine, which has to be drawn off by the catheter. No vomiting. Temperature normal. Ordered: tincture of belladonna, ten minims; camphor water, half an ounce; every six hours.—25th: Early this morning he passed a small quantity of fæcal fluid. He slept well, and is comfortable. Complete retention of urine still continues. The urine was drawn off by catheter this morning without chloroform, and fourteen ounces were evacuated. It was acid, clear, and of specific gravity 1012. He takes his milk readily.—26th: He had another good night, and continues cheerful and free from pain. There is still complete retention of urine, but this morning he passed a very dark liquid stool containing only small pieces of solid matter, the largest about the size of a pea. Temperature normal; pulse 92. Twelve ounces of urine were drawn off about midday. He is taking custard to-day.—27th: He has again passed a good night. He complains of no pain, but the catheter was required again to relieve his bladder. The bowels have not acted to-day.—28th: He continues free from pain and takes his food well. In the afternoon he passed urine naturally for the first time since the operation. In the evening the bowels acted again, and much more naturally; he passed about six solid pieces, the largest the size of the little finger, greenish-yellow and firm. Ordered farinaceous diet with milk.—29th: After passing a good night he emptied his bladder naturally. The bowels acted well in the afternoon. In the evening he sat up for the first time since the operation.—30th: His bowels acted well again this morning, and he was allowed to get up early in the day—July 1st: He is running about the ward apparently quite well.—2nd: He continues well, and went out to-day.

It will be observed that the vomiting and abdominal pain which commenced on Saturday morning continued without relief until the operation on Monday evening. The condition of his bowels was not known with any certainty until after his admission into the hospital. All that the friends were able to state was that he had been two or three times to the watercloset, but whether anything was passed was not ascertained. Among the children of the poor little attention is paid to the condition of the excreta, and the sanitary arrangements are often such as to prevent any examination of the motions passed. Soon after his admission into the hospital, however, he passed blood per rectum without any natural motion, and, a tumour being felt in the abdomen, the diagnosis of intussusception was not doubtful. The obstruction was overcome by combining inversion with inflation, after inflation alone had failed. The tumour was felt to disappear under the hand, and the intestine, becoming unravelled by the *vis a tergo* allowed air to pass up beyond the seat of obstruction. From this time the vomiting ceased, and the only trouble that followed was due to retention of urine, which is a not uncommon complication of abdominal operations. His diet was restricted for several days to a pint of milk in twenty-four hours; the bowels acted on the morning of the third day; and, when the bladder began to empty itself naturally on the sixth day, there was no longer any cause for anxiety.

Nothing could have been more satisfactory than the result of our treatment in this case; but had we failed to reduce the obstruction in the manner described, we had other resources at our command. It was our intention, under such circumstances, to have opened the abdomen on the linea alba; to have sought for the tumour, and, having found the intestine at the point of invagination, to have exerted gentle traction, thus employing what might be described as *vis a fronte* for the restoration of the bowel to its proper position. Had we been again baffled in our attempts to restore the intestine to its natural condition, we should probably have proceeded, if the condition of the patient had permitted, to perform resection of the intestine. This would be performed only as giving a last chance; and I am strongly of opinion that, with a better recognition of the symptoms characteristic of intussusception, it will seldom be necessary to resort to this extreme measure, or even to that of opening the abdomen. It is sometimes pleasant to look back on the experience of former years, and these cases possess an especial interest for me, inasmuch as the first case I ever published and the first printed article to which my name was ever attached was, "A Case of Intussusception cured by Inflation," which appeared in THE LANCET for 1870, vol. ii. page 183.

"POLITICAL MANIA" IN CONJUNCTION WITH PARALYSIS AGITANS.

BY ALFRED MANTLE, M.D.

THE following particulars of a case of "political mania" in a respectable working man, the subject of paralysis agitans, may be interesting, since attention has recently been drawn to this form of madness in the columns of THE LANCET.

W. S——, aged sixty-nine, has been under my observation five years. He never had any serious illness until ten years ago, when symptoms of tremor appeared. He has always been of strictly temperate habits, and was formerly a carrier by occupation, but latterly worked at a colliery. He is the eldest of eight children. His father, who always took a lively interest in politics, died of senile decay. His mother died of consumption. Three sisters are living, and healthy. His four brothers are all healthy, with the exception of the youngest, who is now suffering with the same disease—paralysis agitans. There is no history of any other member of the family having any nervous disease, but all take an interest in politics. My patient is a well-educated man for his position in life, and has always watched the political world with a considerable degree of enthusiasm. When a Conservative working-man was supposed to be a being scarcely in existence, and only rarely heard of, let alone seen, my patient, although living in a remote corner of the country, was a staunch supporter of Conservative principles; and, unlike the majority of politicians, he has never deviated from the path of Toryism, but has always remained true to the cause he first espoused. For seventeen years he has taken a daily paper and closely watched the political party in power, but it was not until the election of 1874 that he became an extraordinary political enthusiast. At this time he was most anxious for the Conservatives to be in power, and, the result of the elections being such as to enable Lord Beaconsfield to form a government, his political craze became more and more intensified. It was noticeable then that he was more easily agitated when anyone advanced an opinion contrary to his own. A few months afterwards he had tremor in the right hand, the arm becoming likewise affected after a short time. He gave up work for nine months, with no improvement. His political ardour was as strong as ever. He attempted work again, but after working for some four or five months he was obliged to give up, the left leg becoming affected with tremor. The disease continued to progress slowly, and at the end of two years all the limbs were similarly affected.

The patient's interest in politics, in spite of so sad a disease, instead of diminishing, has steadily increased, and at the present time, when sometimes he is quite prostrated by the sufferings and discomfort such patients have to endure, he will make a determined effort every morning to learn the political news revealed in the daily papers. On account of the tremor being so general, and having the constant desire to change his position, suffering as well from excessive heat, this is only accomplished under the most trying circumstances. Anything else save politics receives little or no attention from him; and his one topic from morning to night, if he can get anyone to talk with him, is that of politics. Should anyone disagree with him, he is very soon in a great state of mental agitation, which results in an exacerbation of the tremor, terminating in great prostration. His wife, knowing that his first question to a stranger is to discover his political creed, makes it her business to ask anyone who may hold different opinions from himself to be Conservative *pro tem.*, in order to prevent an exacerbation of the tremulous symptoms and consequent prostration. I have always made the same request to a locum tenens seeing him in my absence. One marked feature is the opinion he entertains of his opponents, denying them any principle whatever. He has a particular

aversion to the late Prime Minister, and does not hesitate to say he would rejoice to hear of his decease. He thinks it is utterly impossible for Mr. Gladstone to get to heaven; and, although holding strong religious views, he is sure he could not enjoy that new country were he conscious of the ex-Premier being there also. Upon my jocosely, though thoughtlessly, remarking one day, on hearing this statement repeated, that I thought both Mr. Gladstone and himself would reach heaven, and that it might possibly happen he would carry the former's harp, he became terribly excited and offended with me for suggesting such a possibility.

A few months ago, when my patient thought the late Government was making some terrible blunders and was impatient for a change, his disease became much exacerbated, and there was great prostration, with retention of urine, lasting for a fortnight. I quite thought he would not recover. Day by day he asked to be informed of the latest news. Being told that Mr. Gladstone had resigned, his face lighted up with joy, and it would be incredible to anyone who had not witnessed it to believe the change in his condition from that time. He soon regained strength of mind and body, and has taken an anxious interest in the late General Election. The excitement in the early part of it, when the Conservatives met with such marked success, was too much for him, causing great prostration and compelling him to keep his bed for several days. When the results were known later on, his disappointment was very marked, for he had expected a great Conservative success. I have spoken of his hatred of the Liberal leaders, but should not omit to remark upon his great attachment for the Tory chiefs. The late Lord Beaconsfield he adored, and most acutely felt his death, telling me it was a greater blow to him than the loss of any relative.

The patient's brother, aged fifty, whom I have mentioned as suffering with the same disease, lives some fifteen miles distant, and was a clerk by occupation, but is now a publican. He has not come under my immediate observation. The symptoms in his case first appeared six years ago, about the time of the General Election of 1880, when he was taking a more than ordinary interest in politics. They are not so fully developed as in my patient, though all the limbs are affected with tremor. From all accounts, his mind has suffered more than in the case of his brother, and he endeavours to live a secluded life, although taking a great interest in politics. It is a remarkable fact that he holds entirely antagonistic views to those of his brother, and is a great admirer of Mr. Gladstone. In consequence of their opinions being so opposed to each other they do not visit, this probably being the wiser course to adopt.

Stanley, Durham.

ON THE

PALLIATIVE AND RADICAL TREATMENT OF THE OBSTRUCTING PROSTATE.

By REGINALD HARRISON, F.R.C.S.,

SURGEON TO THE LIVERPOOL ROYAL INFIRMARY, AND LECTURER ON CLINICAL SURGERY IN THE VICTORIA UNIVERSITY.

IT is now upwards of four years since I brought under notice my views and practice as to the prevention and palliative treatment of prostatic obstruction,[1] and eighteen months since I published a communication[2] illustrating the employment of prostatotomy in more advanced and otherwise irremediable forms of this affection. It is to these subjects I propose again referring. Though the proportion of persons suffering from an obstructing prostate is not inconsiderable, it is a matter of satisfaction to me to know from my own observations, and to hear from others who have been good enough to communicate with me, that there are grounds for believing that it has been sensibly diminished by the more general employment of the simple means advocated in my first paper, and that hence the necessity for adopting the more radical measures which form material for description in the second communication referred to has been, and is still further likely to be, sensibly reduced. Still, so long as cases of the latter kind present themselves, so long will it be necessary to carefully consider the various proposals urged for their relief.

It is hardly requisite to point out how frequently we find large prostates in persons who have been, as far as it is known, but little inconvenienced by them, the explanation of this immunity from symptoms being found in the fact that the growth in no way interfered with the outlet from the bladder. In this conservative process there is much that may be imitated by art; and as the regular expulsion of urine from within outwards is capable of preventing obstruction by the formation of grooves or channels in the hypertrophied mass, so in like manner may the same condition be brought about by the introduction of a suitable instrument along the passage which is threatened with extinction. It is important to notice how slight is the prostatic barrier in some of these instances, but yet how complete is the obstruction which is thus occasioned both relatively to the act of spontaneous micturition and to the introduction of an instrument to relieve it. When we consider how extremely limited physically is the nature of the obstruction in many of these cases, it is not difficult to understand how readily this state may be remedied by the timely adoption of mechanical means. How easily the mere outlet of the bladder may be improved in some instances of obstruction by a large prostate is shown by the undoubted success which frequently followed the practice of Mercier in making a linear incision through the prostatic bar, and more recently by the means advocated by Gouley, where no more than a small portion of the obstruction is punched out by an ingenious instrument contrived for this purpose. Of both of these operations I have had sufficient experience to enable me to conclude that, as a rule, the amount of tissue it is necessary to divide or destroy for the purpose of permanently improving the outlet from the bladder is comparatively small. It is, however, not to be implied that, because the orifice of the bladder is mechanically improved so far as relates to the mere act of letting urine out or an instrument in, the power of spontaneously discharging urine naturally follows upon this; on the contrary, it frequently happens that under the strain of months or years of unaided micturition the muscular power of the bladder becomes sensibly and permanently weakened, or the power of expulsion completely disappears, never to be regained. Hence it becomes, in all cases of impeded micturition, of the first consequence that every means should be taken to avert a catastrophe which by no means ceases with the mere inability to expel urine from the bladder. From the observation of a number of cases of this kind, it seems clear that when the prostate in its growth commences to obstruct micturition the hypertrophic process increases proportionately with the efforts of expulsion. This is only to be expected in a part which largely consists of involuntary muscular fibre, and is necessarily more or less involved in the sphincter action of the apparatus. In illustration of what preventive treatment can do, I will select a typical case of the kind which has been under observation for some years.

In 1881 a gentleman of sixty years of age consulted me for an irritable bladder. Not only was there unnatural frequency in passing urine, but the act had lost its normal characteristics, for, instead of the urine being expelled in a stream, it seemed rather to ooze from the penis. Though an examination of the prostate from the rectum revealed but little amiss with the gland, further investigation determined—first, that there was a considerable obstruction within the prostatic urethra; and, secondly, that the bladder was commencing to lose its power. Under these circumstances I advised the patient to introduce a soft instrument into his bladder daily until further instructed. In the course of three months he was practically well, and, beyond passing his instrument occasionally for his own satisfaction, he has remained so. Can it be doubted that this marked change was due to the use of the instrument? What would the patient's condition have been within six months had nothing of this kind been done?

In an experience of this kind, which has not been inconsiderable, I think I may say that where there exists any mechanical obstruction to the escape of urine along the urethra from the bladder, I have never known any harm come when an instrument adapted to the particular case has been selected and is properly used. Where these conditions are not complied with, it is not remarkable that the results have been disappointing. On the other hand, the evidence of patients themselves as to the immediate and

[1] The Prevention of Prostatic Obstruction. (Churchill, London, 1881.)
[2] On the Treatment of certain Cases of Prostatic Obstruction by a Section of the Gland. (Transactions of the International Medical Congress, Copenhagen, 1884.)

permanent advantages attending the employment of mechanical means in the earliest stages of prostatic obstruction is sufficiently ample to render further allusion to this aspect of the question unnecessary.

I will now proceed to notice the treatment employed in those cases of prostatic obstruction where the condition of the patient appeared hopeless of relief by such palliative measures as the use of the catheter. I have now operated under these circumstances in four different ways, which I will briefly illustrate.

First, by a removal of more or less of the obstructing prostate by an incision from the perineum. In two instances where this was done both patients are now alive and well, after intervals of seven and four years, having previously suffered from the most serious forms of prostatic obstruction.

Secondly, by perineal incision and section of the bar, and by the subsequent use of a proper drainage-tube. Let me take two illustrations from amongst several where this was done. In June, 1883, I reported[3] one of my earliest cases where I had thus operated. The patient has since remained under observation, has discarded his catheter for over a year, and is perfectly well. In August of the present year I met a man (J. B——, aged seventy-three) in the street carrying a heavy load on his back, who I recognised as an old patient of mine upon whom I had performed median prostatotomy. I questioned him, and found that he was quite well and had never used the catheter since he left my care. The circumstances of this case, which has not been published, are briefly these: The patient was sent to me by Dr. A. Barron. He had a large prostate, required constant catheterism for retention; the instrument was difficult to introduce, and serious hæmorrhage frequently took place. For three weeks he was treated in various ways, but with no benefit. His desire to urinate and his strainings were incessant, and nothing appeared to give any relief. In February, 1884, he underwent median prostatotomy, and wore one of my tubes for seven weeks; the perineal wound closed, and he shortly left the infirmary with the result I have already mentioned. I should add that I have recently had an opportunity of passing a full-sized bougie, when not the slightest hitch was experienced. This man's present condition is a remarkable contrast to what it was previously.

Thirdly, by the permanent retention of a perineal tube with a suitable tap. This has twice been resorted to. In both of these instances it was only intended to use this apparatus for temporary purposes after median prostatotomy, as in the second class of cases, but at the patient's desire the tube was allowed to remain in. In one of these instances the patient wore the tube for three months in the infirmary, and then left to reside at a distance from Liverpool. I have not been able to hear further of him. The second case was where the patient wore the apparatus nearly three months, when he removed it on finding the power and function of the bladder returning. The opening has closed, and when he was last seen by me, nine months after the operation, he was quite well, but he still used the catheter daily. I believe he could do without the latter instrument, but he had suffered so much from retention and difficulty in getting an instrument into his bladder prior to the operation that I was not surprised at his taking this precaution.

I should just say one word on the apparatus used. It consists of my ordinary bladder drainage-tube, as made for me by Mr. Wood, 81, Church-street, Liverpool, to which is attached a piece of rubber tubing, about 2 ft. long, terminating in a small stopcock; the perineal tube is retained by a modified T-bandage, whilst the end of the tubing is looped into an ordinary belt which the patient wears. All he has to do is to let down the end of the tubing and turn the stopcock when he requires to pass urine. Within three weeks both of the patients I have just mentioned were up and going about the wards as usual. I have frequently had patients up and about within ten days from the operation.

I have sometimes been asked whether I do not find that the urine leaks through the wound by the side of the tube. If the wound is properly made this is not the case. It sometimes happens that after the perineal tube has been worn for three or four weeks the urine is suddenly propelled along the side of the tube, and I have known some even escape along the anterior portion of the urethra. This is a sure indication that the tube may be entirely dispensed with, and that the urethra is prepared to resume its normal function.

Fourthly, by prostatic puncture, without incision, and the retention of the cannula made for me by Messrs. Krohne and Sesemann. Atrophy of the large prostate has followed this proceeding.

A study of the cases I have arranged under these four headings will, I think, justify me using the term "radical cure" in connexion with the treatment of advanced forms of prostatic obstruction. I will now, in conclusion, turn to the other side of the picture, and refer to those cases where I have failed to obtain the results I could have desired. I have now operated over twenty times—a number sufficiently large for the purpose of drawing some general conclusions which seem to me of value in connexion with this subject. Not a single instance has yet happened to me where I either regretted having done the operation, or directly or indirectly connected the death of the patient with the proceeding. In two instances only, so far as I know, did the patients die; one three weeks after the operation, and another four. Both of these patients lived longer and far more comfortably than they would otherwise have done, and had nothing to regret in what was undertaken for them. Both patients showed after death a condition of the urinary organs beyond repair; both showed the damage that long-continued back-pressure of obstructed micturition is capable of effecting, and to this extent was a cause for regret that more perfect mechanical measures for relieving this back-pressure had not been earlier applied. Both of these cases, however, served to teach how the mechanism of median prostatotomy, as already described by me,[4] might be improved, for both shewed that in some instances the form of the prostatic bar was such as to render it wellnigh impossible to divide it adequately, as in lateral lithotomy, from before backwards; it is necessary sometimes to use a long curved probe-pointed bistoury, passed within the bladder from the perineal wound, and to divide from within outwards. Of the importance of this I have since been able to satisfy myself in practice. Only in these two instances, and a third, where I removed almost the whole of a carcinomatous prostate, the patient living in comfort for ten months, and being able to return to his work, did death follow, so far as I can ascertain, either shortly afterwards or more remotely, any of the proceedings I have just referred to under the headings of prostatectomy, prostatotomy, and perineal drainage. The improvements which have recently been made in the drainage of bladder wounds, the arrest of hæmorrhage, and in the use of antiseptics, bid fair not only to extend our means of relief in directions which previously seemed hopeless, but to lessen the high mortality which appears to have attended some operations for stone and allied affections of the urinary apparatus.

Liverpool.

[3] British Med. Journal, June 9th, 1883.

[4] Trans. International Medical Congress, Copenhagen, 1884.

A CASE OF CYSTICERCUS OF THE ANTERIOR CHAMBER.

By RICHARD WILLIAMS,

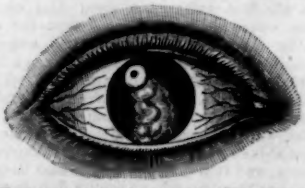
SURGEON TO THE LIVERPOOL EYE AND EAR INFIRMARY, AND OPHTHALMIC SURGEON TO THE ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

F. B——, a collier, aged twenty-two, was admitted into the Wigan Infirmary on Sept. 12th, 1885, and was first seen by the senior house-surgeon, Dr. J. Buchanan, to whom I am indebted for the notes relating to the earlier period of the case, and who found him suffering from iritis of the right eye. Three days later this diagnosis was confirmed by myself, and the case was treated with atropine in the ordinary way. The patient said that three or four weeks before admission his first symptom had been pain in the eyebrow, followed two days later by "inflammation" and failure of sight. Some days the pain was so severe that he had to take to bed. Previous to the attack his vision had always been good. There was no specific history.

On admission the iris was discoloured and the pupil apparently fixed, the officinal solution of atropine producing no dilatation. On Sept. 21st a whitish mass was noticed in the lower part of the anterior chamber, and immediately above, rather behind and to the inner side of this mass, a small round

vesicle about the size of a small bead was observed. It was transparent and contained a whitish nucleus. Two days later the vesicle had somewhat changed its position, and was seen to have a tremulous motion. On Sept. 28th it had moved upwards and the exudation covered the pupil, so that the patient's vision amounted to faint perception of light. The following day the patient was again seen by me after my return from a fortnight's holiday, and the eye presented the appearance shown in Fig. 1. There was considerable perikeratic injection and lacrymation. The pupil was hidden behind a mass of whitish substance, which might easily have been mistaken for lens matter after a needling operation. Above this heap at the outer and upper corner of the anterior chamber, resting on the iris, was seen a small, round, transparent body, with a regular outline and a yellowish speck in the centre. On carefully watching this

FIG. 1.



body, its walls were seen to have an active wavy movement every now and again, and the diagnosis of cysticercus was now made. It was also noticed that during the more active movements a whitish cloud passed apparently through the vesicle, so as temporarily to hide the nucleus in the centre. On Sept. 30th some of my colleagues at the Eye and Ear Infirmary had an opportunity of examining the patient, and all agreed in the diagnosis. The cyst had now dropped to the lower and outer angle of the anterior chamber, so that altogether it had made an excursion of nearly the whole of its circumference. Two days later (Oct. 2nd) the movements of the entozoon were much less marked, but still quite visible with the aid of a magnifying lens, and the exudation had considerably diminished. The general symptoms were, however, on the increase, and the pupil was undilated.

The patient was now placed on the operating table, and

FIG. 2.

some cocaine having been instilled, a linear incision was made with a Graefe's knife in the lower part of the cornea, just below the cysticercus. The incision was made rather quickly, in the hope that the vesicle would escape with the aqueous. My expectations were more than realised, for it shot out with considerable force, and was found on the pillow near the patient's head. The iris prolapsed into the wound and could not be returned. I therefore cut off a small portion, and the eye was dressed in the usual way. The eye made an excellent recovery, and now (Nov. 20th) V=⅔, there being only a slight difference in clearness between this and the other eye. The small gap in the iris and one or two small pigmentary deposits on the lens are the only remaining ill effects. The cyst, on being picked up, collapsed, but the cyst wall was put under the microscope by Mr. Barnard, the junior house-surgeon, and presented two groups of hooklets, of twelve each, one of which is shown in Fig. 2. The anterior chamber, as shown in Fig. 1, was the seat of a considerable quantity of a peculiar-looking exudation, which, I believe, was not at all inflammatory, but was probably a coagulable liquid thrown out of the vesicle itself. Two things lend probability to this supposition. First, the shape and position of the exudation—immediately underneath the vesicle; and, secondly, it diminished in quantity with the diminished activity of the animalcule, although the general symptoms of inflammation were rather on the increase.

The extreme rarity in this country and in France of cases of entozoa of the organ of vision imparts to them quite an exceptional interest, and every practitioner is under an obligation to record whatever experience he may possess of so interesting and destructive a disease. De Wecker says (Traité Complet) that no case of cysticercus of the anterior chamber has ever been recorded in France, and in 100,000 patients he only met with two cases of the animalcule in the vitreous. On the other hand, the disease is comparatively common in Germany, for Alf. Graefe detected the entozoon eighty times in 80,000 patients. The reason given for this great difference in frequency is the custom of eating raw meat in the latter country. In the British islands, Mackenzie, Windsor, and Teale have each reported a case. In the district in which my patient lives the disease cannot be common, for this is the only case that has come under my observation, nor do I know of anything in the patient's habits or circumstances to account for the appearance of the disease in him.

CASE OF POST-MORTEM HYPERPYREXIA.

BY T. EDGAR UNDERHILL, M.B., F.R.C.S. EDIN.,
SURGEON TO THE GUEST HOSPITAL, DUDLEY.

THE subject of post-mortem thermometry is one that has at various times attracted the attention of many observers, and different theories have been put forward to account for the remarkable elevations of temperature which are occasionally found to exist after death. Wunderlich says: "In many cases of disease, even such as are not febrile in themselves, during the last hours of life the temperature rises enormously, generally by a sudden spring to over 41° C. (105·8° F.), or even above 44° C. (111·2° F.) They are generally diseases in which the central nervous system is seen to be implicated, and generally severely so before the rise of temperature. Tetanus in particular pursues such a course, and so do epilepsy and hysteria when terminating fatally; and so also inflammatory affections of the brain and medulla spinalis, as well as injuries of the upper part of the medulla." He adds: "The remarkable phenomenon of post-mortem rise of temperature which sometimes occurs in cholera, but especially in cases of disease which have terminated with hyperpyretic temperatures, is based on two causes. When death occurs, the cooling that goes on by the introduction of air (in respiration) and by perspiration comes to an end, whilst the warmth-producing processes of the economy are not so immediately terminated; and new sources of warmth are opened after death by changes in the substance of the muscles and post-mortem decomposition—two sources which are foreign to the living body, and which are sufficient to maintain the corpse for a short time at an equilibrium of temperature against the losses of heat it suffers, and sometimes even to raise the temperature a little." According to Huppert, and also according to Fick and Dybkowsky, the reason for the elevation of temperature after the cessation of the circulation is to be found in the setting free of heat during the stiffening of the muscles on the coagulation of the myosin. At the same time, with the cessation of the circulation, the circumstances governing the giving off of heat change, the exchange from one layer of the body to another is accomplished by conduction without the intervention of the circulation. In the following case there was no evidence of any implication of the central nervous system or any visceral lesion as a cause of the hyperpyrexia, the slight delirium which was present in the pro-agonistic stage being apparently a result of that condition. Death occurred at an hour when in the diurnal fluctuation of temperature the mercury is generally at its lowest, and in spite of antipyretic medicines, which only resulted in profuse diaphoresis.

S. P——, aged thirty-five, a strong, healthy woman, was

delivered on Nov. 5th, 1885, of a living male child. Labour was natural, and she progressed most favourably afterwards, speedily becoming convalescent. On Dec. 3rd she came to consult me about a small tender swelling in the left breast, close to the nipple. Milk was abundant, and she was nursing from both breasts. I applied some liquid extract of belladonna to the left breast, and recommended her to stay in the house for a few days.—Dec. 6th: There was every appearance of a small mammary abscess, though fluctuation was indistinct. She complained of shivering. Was ordered to bed, with quinine every two hours.—7th: Much better. Temperature normal. No pain in breast. Fluctuation more distinct.—8th: Slight rigor; skin moist; no pain; abscess about the size of a small nut, and pointing close to the nipple. I suggested making an incision, but she preferred to let it take its course.—9th: Patient same as yesterday. Skin warm and moist; abscess had not burst. I omitted to use a thermometer, as there appeared to be no higher temperature than I should have expected from the state of the breast. No evidence of disease in any other organ. In the evening her husband came to me and said she complained of feeling very hot, but was in no pain. I ordered fifteen grains of salicylate of soda and fifteen grains of citrate of potash every two hours.—10th: Sent for at 4 A.M., but on my arrival found the patient dead. Her mother told me that she had remained in the same condition as when I last saw her, merely complaining of feeling very hot, till about 3 A.M., when she became slightly delirious, and died a few minutes before I arrived. On placing my hand on the body, I found it still very hot, though the skin was moist, and her night-dress was saturated with perspiration. I introduced a thermometer into the right axilla, and the mercury rapidly rose to 110·2° F. Thinking there might be a mistake, I shook the index down and took the readings again, but with the same result. After fifteen minutes I requested patient's mother to ascertain the temperature, and she found it exactly the same. I waited for more than an hour, and removed the bedclothes so as to expose the chest and allow cooling to proceed more rapidly, and the mercury then rose to 108·8° F.

I regret that I omitted ascertaining the temperature on the two days preceding death, though I am of opinion, from a manual examination, that there was no condition of hyperpyrexia existing when I last saw her alive. The case is a most unfortunate one, as there was no evidence of disease in any organ which would lead one to suspect a fatal termination, and consequently I expressed a favourable prognosis only a few hours before death took place.

A CASE OF TUBAL PREGNANCY.

BY ALEX. HAY, M.D.

FROM the rarity of cases such as the following, I have deemed that a perusal of the details may be of interest.

On December 23rd, 1883, I was called to visit Mrs. R——, a young married woman, aged twenty-four. I found her in bed, lying on her back with her knees drawn up, slightly feverish, and complaining of considerable pain all over her abdomen, but especially over the left side. There was slight tympanites and tenderness on pressure. She told me that she had no family, but that she had not menstruated for four months, and had felt quite well until the day previous to calling me in. She attributed her present illness to fatigue which she had just undergone while nursing her sister-in-law, who had been very ill. On examining her abdomen, I discovered a tumour about the size of the fist in the left iliac region, manipulation of which caused some pain. I called her attention to its presence, but she said she had never felt it before. It was freely movable, and presented to the touch the feeling of a round solid mass, but on more minute examination I convinced myself that there was an off-shoot from its inner border. I then examined per vaginam, at the same time pressing the tumour down from above; but, as no impetus was felt at the os uteri, the idea immediately occurred to me that I had to deal with a case of tubal pregnancy. I ordered her an opiate and to apply hot fomentations.

I saw the patient the next day, and, discovering nothing to make me alter my opinion, I resolved to have a consultation, and accordingly, on Dec. 26th, called in Dr. Stirton, Professor of Midwifery in the Glasgow Royal Infirmary School of Medicine, telling him what I believed to be the nature of the case. He examined the patient carefully, and at first was inclined to agree with me in my diagnosis; but after passing the uterine sound he came to the conclusion that she was not pregnant, but was suffering from ovarian disease, and in this opinion he was strengthened by the fact that there were present none of the usual signs of pregnancy—no sickness, no mammary secretion, and no deepening in colour of the areola; and, moreover, during his examination per vaginam, there was discovered a discharge of blood which had the appearance of being catamenial. At the same time he stated that I might be right after all, that probably the wish on his part might be father to the thought, and advised me to watch the case, as time would clear the matter up.

I continued to visit the patient daily, each time making a careful external examination. During the night of the 29th she had suffered a good deal of pain of a bearing-down character, and I was sent for early next morning. On arrival I was told that something had come away, and when this was shown to me I found it to consist of a male fœtus of quite four months, with placenta and membranes, which I carefully preserved, and have the specimen before me as I write. I communicated the result to Dr. Stirton, and afterwards showed him the specimen. He mentioned this case at a meeting of the Glasgow Southern Medical Society, and it was suggested to him there by one of the members that there may have been a double uterus; but in this view neither he nor I coincided, because, in the first place, the tumour was quite distinct from the uterus, as evinced by no impetus being conveyed to the finger placed against the os when pressure was applied externally; and, in the second place, with the expulsion of the fœtus the tumour quite disappeared, and on passing the sound it was found to be like a virgin uterus. My own opinion is that it was purely a case of tubal pregnancy, that the offshoot which I felt at first must have been the lower extremities, and that the irritation set up by the previous exertions of the patient, the passing of the uterine sound, and the frequent manipulation, had caused contraction of the pouch formed in the Fallopian tube and the subsequent expulsion of its contents.

The patient made a good recovery, no untoward symptoms arising. She left this district some time ago, but being anxious to know somewhat of her subsequent history I instituted inquiries about her, and learned that she had given birth to a full-grown male child on Aug. 21st last, and that the same kind of tumour had again presented itself in the same region, and had remained there until between the third and fourth month of pregnancy, when it suddenly disappeared, receding (presumably) into the uterus, and remaining there this time until the full term of utero-gestation, as the sequel showed. thus resembling a case reported before the Obstetrical Society of London on Oct. 7th by Mr. E. F. Grün.

The Grange, Maryhill.

NOTES ON SPRING HEALTH-RESORTS.

BY W. E. BUCK, M.A., M.D. CANTAB.

THE question of where to send patients after wintering on the Riviera is often a difficult one. They are only too apt to hurry back to England at the most trying time of the year, and so undo all the good done; after which they will maintain that, "though the Riviera does temporary good, the benefit of wintering there is but transitory."

There are two spots in the Maritime Alps which seem to me particularly well suited to be half-way houses on the road to England—namely, San Dalmazzo di Tenda, and the Certosa di Pesio. Of the two, San Dalmazzo appears to offer the most advantages. A large building, formerly a convent, has been turned into an hotel or *pension*, where, if desired, hydropathy can be indulged in. The management of the establishment is excellent, and the prices are reasonable. It is situated on the southern side of the Col di Tenda, in the valley of the Roya, and at about 2000 ft. above the level of the sea. The surroundings are most picturesque. The air in May and June is light and fresh, but not cold, and less exciting than the air of the Riviera. San Dalmazzo is on the high road to Nice, but is nearer to the station at Ventimille, which may be reached in six hours by a good

carriage-road. The establishment opens on April 15th. The Certosa di Pesio is another charming resort. It is cooler than San Dalmazzo, being rather higher and situated in a valley on the north side of the Maritime Alps, and does not open till the middle of May. It can be easily reached from the Riviera, *vid* Genoa, Savona, and Mondovi; the Certosa is about three or four hours' drive from the last-named station

Leicester.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

SURGICAL CASES.

(Under the care of Mr. SYDNEY JONES.)

FRACTURE of the base of the skull is a severe injury, and when complicated with numerous other fractures, notably of the bones of the face, proving the great severity of the violence applied to the head, is usually fatal. Fractures of the bones of the face, including the superior maxilla, the nasal bones, and also the inferior maxilla, are uncommon, and the injury usually terminates fatally. In this case there was in addition a Colles' fracture of both arms, one of them compound. In a large number of cases of fracture of the base of the skull optic neuritis develops during the course of treatment, but, if unattended by symptoms of general meningitis, does not appear to indicate a bad prognosis. The case of dislocation of the knee is an example of one of the commoner dislocations of that joint (a lateral one), and is interesting from the fact that such injuries are rare.

CASE 1. *Fracture of the base of the skull; separation and fracture of the bones of the face; Colles' fracture of both forearms; strabismus and optic neuritis; recovery.* (From notes by Mr. SHERRINGTON.)—The patient, a coal-porter, aged thirty, was admitted on March 27th, 1884, having fallen twenty feet into a coal-bin half an hour previously. He had been unconscious for a short time after the fall. There was a wound of the upper lip, extending half way to the nose from the mucous margin; there was also a contused wound over the bridge of the nose, at the bottom of which bare bone could be felt, and running vertically across the base of it a line simulating fissure of the bone. There was much ecchymosis of the cellular tissue of the eyelids of both eyes, and on the right side it was present under the ocular conjunctiva. There was slight hæmorrhage from the mouth, nose, and left ear. The lower jaw was fractured in two places, the two lines of fracture being one on either side of the symphysis, and between them included a fragment containing the two central incisor teeth and their bony sockets. This fragment was lying loose and nearly completely free under the tongue. It included more of the inner than of the outer plate of the alveolus. The two halves of the jaw moved freely against each other with crepitus. The upper jaw was also fractured, the two halves being separated one from the other and easily moving against each other, the range of movement being, however, limited to about the eighth of an inch. There was an impacted Colles' fracture of the left arm, with some comminution of the lower fragment; also a Colles' fracture on the right side, with two small wounds above the wrist in front, one of which communicated with the fracture. In both fractures the typical displacement was well marked. The man was suffering from shock, cold and shivering, but conscious. Pulse 112. Hot bottles were applied to the feet. The wound of the forearm was dressed antiseptically, and after extension of each forearm to restore position, anterior and posterior plaster-of-Paris splints were applied.

April 4th.—Gutta-percha splints for the upper and lower jaws were applied. The right forearm was dressed and splint reapplied. The wound was almost healed.

5th.—A gutta-percha splint was applied to the under surface of the lower jaw. The right pupil was smaller than the left and acted to light; the left pupil did not respond well.

14th.—The eyes were more fully examined, and the following note made:—Nearly complete paralysis of the right external rectus; other movements normal; secondary squint very marked. Left eye movements normal. The pupil has no direct action to light; indirect action good; it is considerably larger than the right pupil. Left optic disc somewhat pale. Veins normal. Arteries somewhat diminished in size. There is slight haze of the optic disc and central portion of the retina, the fovea centralis being very easily seen. The right fundus appeared normal; there was some doubtful haze about the margins of the disc. It was supposed that in all probability there had been direct injury to the left optic nerve, possibly by fracture through the optic foramen.

16th.—The appearance of the left fundus resembled that of embolism of the central artery, the arteries being diminished and there being a good deal of haze. The blindness was first noted about four days after admission.

22nd.—Yesterday the splints on the left arm were shortened, so as to leave the fingers free. A week ago those on the right arm were similarly reapplied. The wounds are completely healed. The fracture of the upper jaw is quite firm and in good position; the splints are discontinued. A fissure, however, exists in the posterior part of the hard palate, about half an inch long, through which fluid passes into the nose. There is some underlapping of the lower jaw due to the loss of the central portion, and the union is not firm. The pieces are fixed by silk fastenings round the bicuspids, and the inside splint is retained.

May 4th.—The fissure in the hard palate has closed, and there is firm union of the superior maxillary bones. The lower jaw is still ununited, and the treatment is carried out as in the last note.

7th.—The left optic disc is extremely pale, the arteries considerably diminished. There are some white lines along the vessels. The right eye is apparently normal.

The temperature for the first week was higher than normal, reaching 100·8° to 102° in the evening, and being 99° or 100° in the morning; after this it was normal. The hæmorrhage from the left ear was slight, and the discharge which followed of small quantity. There was no vomiting. The strabismus was very marked at the time of discharge, forty-five days after admission.

CASE 2. *Dislocation of the left knee.* (From notes by Mr. TOTSUKA.)—T. K——, aged forty, a bargeman, was admitted June 21st, 1885, and remained under treatment fifty days. A few minutes before admission, whilst standing on a barge, a heavy rigging fell on his back; he was knocked down by the weight and twisted his leg in falling.

On examination there was found to be considerable deformity about the left knee-joint, the thigh was rotated outwards and abducted, and the leg rotated inwards and adducted, thus forming a distinct angle with the thigh. The tibia was found to be dislocated and strongly rotated inwards, the condyles of the femur being felt on the outer side. Owing to considerable rotation of the femur, the inner condyle was found situated directly in front of the outer, and the trochlear surface of the patella pointed directly outwards. The patella could be distinctly felt resting upon the internal condyle of the femur. The internal tuberosity of the tibia with its anterior surface could be felt projecting on the inner side of the joint. He was a strong muscular man. In addition to the pain in the knee he complained of pain in the left side, especially on drawing a deep breath or coughing, and on examination a contusion was found and crepitus elicited, there being two fractured ribs (? seventh and eighth).

The dislocation was reduced without difficulty by Mr. Sydney Jones, the patient being under the influence of chloroform. Plaster-of-Paris splints were put on the knee and a long outside splint applied to the limb. A flannel roller was applied to the chest. The temperature rose to 100·4° or 99·2° in the evening for a few days. There were no unfavourable symptoms.

ANCOATS HOSPITAL, MANCHESTER.

URETHRAL STRICTURE; PERINEAL ABSCESS; CONTINUOUS DILATATION; CURE; REMARKS.

(Under the care of Mr. E. STANMORE BISHOP).

A. S——, Arab, aged twenty-eight, was first seen on Oct. 18th, 1885. Had always had good health, with the exception of ague and several attacks of gonorrhœa, of which he

thought so slightly that he could not be certain of their number. Was sent to Syria this year whilst suffering from a gleety discharge, and whilst there had to spend several hours in the saddle; once or twice as many as twenty hours at a time. Has always lived freely, and smokes incessantly. Had noticed for some years that the stream of urine was narrower than it should be and somewhat forked. Has now intense pain on passing urine, which comes in a small stream, but with much force. The most intense pain, however, occurs about five seconds after urination, there being a quiet interval first, and lasts for some time, gradually becoming less. This pain he describes as burning and scalding in character. This acute condition has lasted five days, becoming steadily worse.

On examination at 10 P.M., a red, hot, swollen condition of the lower third of the scrotum, as well as the anterior portion of the perineum, was seen, the inflamed condition gradually blending with the normal tissue about half way between the anus and the scrotal line, or about the plane of the posterior edge of the triangular ligament, and in front the rest of the scrotum was in a normal state. There was slight epididymitis on the right side, from which a hardened cord passed towards the inflamed focus. The penis was tender, and there was a slight discharge of pus. Examination per rectum was not unbearable, but still painful, and showed a still full bladder, with a tender, somewhat enlarged prostate. Temperature 102·6°.

The diagnosis was perfectly plain—viz., a stricture of the urethra, probably at the spongio-membranous junction, behind which ulceration had taken place, with discharge of urine by it into the peri-urethral connective tissue, at first guttatim, but now most probably in moderate quantity, the main amount passing in when the *vis a tergo* was not sufficient to carry it in a quick stream through the stricture, but was flagging as the bladder became more empty.

With the assistance of Dr. Douglas, who first saw the case, chloroform was given, and an incision made in the median line through the tensest portion of the swelling, which allowed the issue of some unhealthy pus and a jet of urine. The cavity, which passed upwards by the side of the urethra, leaving its right side exposed in the wound, was washed out by perchloride solution, and a drainage-tube introduced. It was then dressed with perchloride lint and cotton-wool, and a T-bandage applied. The patient recovered from the chloroform well, and expressed himself free from pain.

Oct. 19th.—9 A.M.: The patient has had a good night. Temperature 99·8°. Urine passes both by the wound and by the urethra. The wound looks healthy; the swelling has already begun to subside; dressed with iodoform and sublimate lint. 9 P.M.: Temperature 100·3°.

20th.—8·30 A.M.: Temperature 101°. The patient has had a rigor; but there is evidence of his having had ague once or twice, and he is extremely nervous, almost hysterical. The wound looks healthy, and most of the urine passes by it in a fairly good stream. Dressed as before. Temperature, 9.30. P.M., 100°.

21st.—12.30 A.M.: Four grains of quinine were given in one dose. Temperature, 1.15 A.M., 103°; 2.15 A.M., 102·4°; quinine repeated.—3.30 A.M., temperature 102·2°; 4.30 A.M., 99·8°; 5.20 A.M., 99°; 6.20 A.M., 98·2°; 7.20 A.M., 98°; 10 A.M., 98·0°; 10.30 A.M.; wound dressed; some slough separating and plugging the opening; tube cleared and reintroduced. 12.30 P.M., quinine repeated.—2.20 P.M., temperature 100·2°; 2.30 P.M., quinine; 3.30 P.M., temperature 99·8°; 6.15 P.M., 99.4°; 6.30 P.M., quinine repeated; 10 P.M., temperature 98°; 11.30 P.M. 99·6°; quinine repeated.

22nd.—3 A.M., temperature 99°; 6 A.M., 99·4°; 9 A.M., 99·4°; 11 A.M., 99°; wound dressed.—3.30 P.M., temperature 98·4°; 6.20 P.M., 98·2°; 9.30 P.M., 97·6°; 12 P.M., 99·3°.

23rd.—6.30 A.M., temperature 99·2°; 9.30 A.M., 99·1°; wound dressed.—12.20 P.M., temperature 98·0°; 3 P.M., 98·0°; 6 P.M., 98·6°; 9.20 P.M., 99°; 12 P.M., 99·2°.

24th.—6.30 A.M., temperature 98·4°; 12 A.M., 98·4°; wound dressed.—6 P.M., temperature 98·6°; 10 P.M., 100°; quinine.

25th.—3 A.M., temperature 99·0°; 6 A.M., 98·6°; 12 A.M., 98·4°. Wound dressed; healing up well. Most of the urine now comes by the urethra. There is no swelling or tenderness about the scrotum, although a little thickening remains. There is a great amount of purulent discharge from the urethra, and there is some little straining required to start the stream of urine.—6 P.M., temperature 98·5°; 10 P.M., 98·5°.

26th.—9 A.M.: Temperature 98·4°; wound dressed.—9 P.M.: Temperature 98·4°.

27th.—10 A.M.: Temperature 98°. The temperature having now been normal for some three days, it was intended to attempt to pass a catheter or bougie on the next day, and as the patient was very fearful of pain, chloroform was given.—9.30 P.M.: Temperature 98·4°.

28th.—9 A.M.: Temperature 98·6°. Chloroform having been given, a large catheter was passed first, which was checked slightly half an inch inside and stopped at a point. An attempt was then made to pass an elastic catheter five inches from the orifice, but it was impossible. Gum-elastic was tried with no better success, and at last a No. 1 silver catheter (English scale) was carefully wormed through a very long and gristly stricture, which appeared to extend along the membranous urethra and some inches of the spongy portion. Before this could be done, however, the wound was broken open again by the finger of the left hand, inserted as a guide to the right direction. The catheter was left in.—3 P.M., temperature 99·3°; 6 P.M., 99·4°; 2 P.M., 99°.

29th.—8.30 A.M.: Temperature 99·4°. The urine has passed partly through the catheter, partly by the side of it, little or none by the wound; as he is pretty comfortable the catheter is allowed to remain. The wound is dressed as before with iodoform and perchloride lint.—6 P.M.: Temperature 99°.

30th.—10 A.M.: Temperature 99·4°. The catheter was removed and a No. 3 elastic was immediately substituted; this passed with ease and was tied in.—9 P.M.: Temperature 100°.

31st.—9 A.M.: Temperature 100°. Another dose of quinine. Catheter left in.—3 P.M., temperature 99·2°; 9 P.M., 99°.

Nov. 1st.—8.30 A.M.: Temperature 99°. No. 3 catheter removed and No. 5 placed in; this also passed fairly easily. The perineal wound has again nearly closed, and the drainage-tube was removed.—9 P.M.: Temperature 99·1°.

2nd.—3 A.M., temperature 99·4°; 8 P.M., 99·6°.

3rd.—9 A.M.: Temperature 99·6°. No. 5 catheter has slipped, and on attempting to replace it by No. 6 considerable difficulty was experienced; it was, however, left in position, but the patient complained of it as very painful.—3 P.M.: Temperature 101·2°. Quinine.—6 P.M., temperature 100°; 12 P.M., 100°. Quinine.

4th.—6 A.M.: Temperature 99·2°. Patient has pulled out the catheter, which appears to have become blocked, and as the urine passes pretty freely per urethram it is allowed to remain out for to-day. The perineal wound is closing, and there is no inflammation about the part.—6 P.M.: Temperature 99·4°.

5th.—9 A.M.: Temperature 99·2°. No. 6 catheter (elastic) again passed, and with comparative ease; left in as before.

6th.—9 A.M.: Temperature 102·0°. Quinine. Catheter left in.—3 P.M.: Temperature 98·3°.

7th.—9 A.M.: Temperature 99·5°. Catheter No. 6 removed, and No. 9 (elastic) passed, and left.—9 P.M., temperature 100·2°.; 12 P.M., 100·0°.

8th.—6 A.M.: Temperature 100°. Quinine.—8 A.M.: Temperature 99·5°. Catheter left in.—8 P.M.: Temperature 99·6°.

9th.—9 A.M.: Temperature 98·4°. Catheter removed and bougie No. 12 passed; left for five minutes and removed. Can now pass full stream of urine, with no straining and no pain. There was still a gleety discharge, but not constantly. Urethra to be distended with eucalyptus oil and olive oil (one part to four) twice daily; and the full-sized bougie to be passed every fourth day for a fortnight, after which time at gradually increasing intervals. The perineal wound is almost entirely closed, and no urine passes by it. The patient, who was very restless, appeared to have considered this condition satisfactory, as he has not attended again for the purpose of having the bougie passed.

Remarks.—This case is given in detail because, although not so complete as one could wish, it yet shows plainly that continuous dilatation is practicable immediately after the subsidence of inflammatory lesions consequent upon the stricture. The patient was an unfavourable one, of an extremely nervous temperament, and had suffered from malaria; but although the temperature went up from time to time during the treatment, it never reached a dangerous height, and appeared to be more due to the aguish tendency than to any direct traumatic cause, passage of catheters, &c.; inasmuch as whilst the catheter remained *in situ* quinine always brought down the temperature to a moderate level. The course of the perineal wound also was most satisfactory, although opened up a second time, in the very difficult introduction of the first instrument.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY

Leucocytosis.—Removal of Tumour from Brachial Plexus.

AN ordinary meeting of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair. The discussion on both papers was well sustained.

A paper was communicated by Dr. Ringer on the Increase in Number of White Corpuscles in the Blood in Inflammation, especially in those cases accompanied by suppuration. The author of the paper was Mr. T. P. Gostling, of University College Hospital. The observations of Virchow, Nasse, and Malassez on the increase in number of white corpuscles in the blood in different inflammatory conditions were alluded to. The estimations recorded in this paper by the author have been made with a Gowers' hæmacytometer, and the results were given in percentage numbers of red and in relative numbers of white corpuscles, the normal number being taken as 1 white to 333 red corpuscles, as stated by Dr. Gowers. Estimations have been made in the following cases:—(1) Iliac abscess; (2) pelvic cellulitis and probably abscess; (3) suppurating white leg; (4) suppurating tonsillitis; (5, 6) white swelling treated by the actual cautery; (7, 8, 9, 10) empyemas; (11, 12, 13) phthisis; (14, 15) serous pleurisy; (16) lobar pneumonia; (17, 18) typhoid fever; (19) acute rheumatism. In the iliac abscess (Case 1) ten observations were made on separate days before the abscess was opened. The first half of these estimations showed the relative average number of white to red corpuscles to be 1 to 160; the second half, 1 to 101. The abscess was then opened, and the proportion immediately fell to 1 to 383, after which there was a slight increase, and then a steady decrease to the normal proportion, as is shown by the following averages: 1 to 203, 1 to 223, 1 to 252, and 1 to 358. In Case 2, which was one of pelvic cellulitis and probably abscess, there was found, for a long period, a large increase in the number of the white blood-corpuscles. As is shown by the averages given below, these covered a period of eighty-four days, and each average was made from five estimations: 1 to 148, 1 to 172, 1 to 150, 1 to 158, 1 to 167. During the above period grave symptoms existed, but on May 15th these commenced to improve, and at once the relative number of white corpuscles decreased to 1 to 250, and on May 19th reached the proportion of 1 to 366. It was thought that an abscess in this case had discharged by the bowel, and, if so, the sudden fall would correspond with that seen in Case 1. Analogous conditions were found in the other cases. The new series of observations were from cases of phthisis (Nos. 11 and 12), in both of which cavities existed in the lung-secreting pus. Cases of serous pleurisy, acute rheumatism, typhoid fever, pneumonia, and cauterisation were also considered with reference to the proportion of white corpuscles. The following conclusions were drawn: 1. That white corpuscles are increased in number in suppurative inflammations, especially when accompanied by tension. 2. That they are slightly increased in parenchymatous inflammations. 3. That they are not increased in inflammations accompanied by serous or sero-fibrinous exudation.—The PRESIDENT thought the observations were of much value.—Dr. SYDNEY RINGER said it was still a question whether the increase was due to multiplication in the blood or outside the vessels with subsequent absorption. It was a question also whether leucocytes did not multiply after emigration, or whether other cells than leucocytes could give rise to white corpuscles.—Dr. BERNARD O'CONNOR asked whether there was an actual diminution in the number of the red blood-corpuscles.—Dr. THIN believed that exuded corpuscles did multiply; the inflamed cornea of the rabbit was a site at which the various stages of fission of leucocytes could be seen. The stable cells did not multiply so far as his investigation went.—Mr. VICTOR HORSLEY said that our knowledge had been brought to this definite point by Mr. Gostling, that the increase of white corpuscles in the blood was connected with the local tension of an abscess; and the suggestion naturally arose whether there was reabsorption of white corpuscles. This point could be determined by estimating the number of corpuscles in a vein going from the inflamed area and comparing them with those in an artery going to the part.—Dr. ANGEL MONEY said that the research was one that had evidently occupied a large amount of time, and involved considerable labour, as would be allowed by those who had worked at the subject themselves. He had noted an increase in the number of white corpuscles chiefly in cases of phthisis and empyema. He thought that white corpuscles might be absorbed by the lymphatics, and so Mr. Horsley's suggestion would not be a conclusive proof.—Dr. SIDNEY COUPLAND said the observations were of much value, but still left us in doubt as to where all the white corpuscles came from, even in an ordinary inflamed area.—Dr. DOUGLAS POWELL inquired how long before the actual suppuration began the increase of the white corpuscles in the blood had been observed. He did not think that abscesses or empyemas were often absorbed.—Mr. VICTOR HORSLEY was of opinion that lymphatics did not act as absorbents from abscesses, but Dr. MONEY said he could not accept that position.—Mr. HOWARD MARSH said that large collections of pus unquestionably disappeared, and probably by absorption.—Mr. THOMAS BRYANT had seen very large abscesses become absorbed, and that very rapidly.—Dr. SIDNEY RINGER asked whether pus was absorbed as such, or only after having undergone fatty and other degeneration.—Mr. T. P. GOSTLING, in reply, said that a normal percentage of red blood-discs was not often observed in hæmacytometric calculations; generally there was a slight decrease. Cases 5 and 6 would show that there was a definite increase before actual suppuration occurred.

Dr. MITCHELL BRUCE and Mr. E. BELLAMY read a paper on a case of Removal of a Tumour from the Roots of the Last Cervical and First Dorsal Nerves. Their object in bringing this case before the Society was that it might possibly be of value in demonstrating the spinal origin of the ulnar nerve as far as regarded its relation with the brachial plexus. The patient, a lady aged fifty-four, and very stout, consulted Dr. Bruce about two years ago, with acute pain in the right arm, rapidly increasing; and with paralysis of the muscles supplied by the ulnar nerve and hyperæsthesia of the integument supplied by its cutaneous branches. The symptoms became so serious that entire loss of power of the arm ensued, with serious affection of her health. About eight months before the operation a tumour was noticed near the middle of the lower portion of the posterior triangle projecting just above the collar-bone, steadily increasing in size, firm, incompressible, almost immovable, and giving great pain on manipulation. In November, 1884, it was determined to cut down on the tumour in order to ascertain its nature. An incision was made such as would be adopted for ligature of the subclavian in its third part, but owing to the great depth and accumulation of fat, a vertical incision along the posterior border of the sterno-mastoid was added, and the growth readily reached. The great blood-vessels were carefully held out of the way, and the brachial plexus exposed, the cords of which were "frayed" out over the tumour. After some careful dissection, a growth, springing apparently from the under surface of the last cervical and first dorsal nerves, was uncovered just at their emergence from the intervertebral foramina, passing beneath the subclavian artery and jutting into the superior aperture of the thorax. No nerve trunk seemed to pass through it, and it was readily enucleated. A full account of the tumour was given in the paper. Almost immediately after its removal the patient lost the peculiar lancinating pain, but there was complete paralysis of the arm, owing to the free handling of the cords of the plexus during the operation. After the parts had thoroughly healed, the constant current was applied, increasing to fifty Leclanché cells, and by degrees perfect restoration of function ensued. In February, 1885, however, the patient was attacked with right hemiplegia, and died in the following October.—Mr. T. BRYANT related the case of a lady, aged fifty, in whom pains in the left arm and wasting of the extensor muscles and weakening of the flexors were the chief symptoms. There was a swelling above the clavicle, pressure on which increased the pain. A supernumerary rib or an exostosis was suggested. The tumour increased in size, and the forearm had become further wasted. An exploratory operation was made, and a tumour reached on the upper trunk of the posterior aspect of the brachial plexus, and was readily enucleated after the sheath of the nerve had been opened. The wound healed up in a few days. The pain did not at once entirely disappear, though it was less shooting and had altered in character. The pain ceased at the end of two months. Microscopical investigation led to the opinion that the tumour was a soft sarcoma into which hæmorrhage had occurred.—Dr. BERVOR

said such cases were of much interest in neuro-muscular pathology and physiology, as throwing light on the distribution of the nerve-roots from which the muscles were supplied. The same subject had been treated by him in a paper published in the current volume of the Royal Medical and Chirurgical Society's Transactions. He also gave the results obtained on monkeys by Ferrier and Yeo. He was now investigating the subject by experimental researches on monkeys.—Dr. B. O'CONNOR related the case of a young lady in whom Mr. R. J. Godlee found on the anterior portion of the first rib an exostosis which had pressed upon the brachial plexus and produced painful and paralytic symptoms.—Mr. W. H. JESSOP asked whether there was any affection of the pupil. Stimulation of the second dorsal nerve in the monkey gave rise to mydriasis, and the first dorsal of the dog also possessed this function. The contraction of the pupil had been observed in a case of Mr. Pick's in which the brachial plexus had been injured.—Mr. VICTOR HORSLEY inquired as to the exact progress of the paralysis of the ulnar nerve; the case would be of no value for purposes of localisation after the tumour had been removed on account of the free disturbance of the whole plexus.—Dr. ANGEL MONEY said that Dr. Hughlings Jackson had narrated a case of progressive muscular atrophy of the small muscles of the hand in which the pupil on the same side was small and did not dilate when shaded.—Mr. STANLEY BOYD said that Mr. Jonathan Hutchinson had observed the contracted pupil in cases of rupture of the brachial plexus. The danger of wounding nerves in operations about the brachial plexus was alluded to, and the employment of flat retractors recommended.—Owing to the absence of Dr. Mitchell Bruce, the reply on medical questions was not forthcoming.

CLINICAL SOCIETY OF LONDON.

Desquamative Prostatitis with Hyaline Casts.—Cervical Spina Bifida.—Myositis Ossificans.

THE annual general meeting of this Society was held on the 8th inst., Mr. Thomas Bryant, F.R.C.S., President, in the chair.

Sir ANDREW CLARK related the case of Acute Prostatitis, with discharge of hyaline cylinders resembling renal cylinders, seen by Sir James Paget and himself. The chief interest lay in the circumstance that during the whole course of the case there were found in the urine hyaline cylinders and small flask-shaped hyaline masses, which in some instances were connected with the cylinders. The patient recovered by resolution. It is nearly seven years since the date of the attack, and the patient, a medical man, has remained quite well. Sir Andrew Clark alluded to two other cases, also of medical men, which had come under his personal observation. They might be mere curiosities of medical experience, but as no reference to the discharge of hyaline casts in prostatitis could be found in standard works or special monographs, he thought the case of sufficient importance to be brought to the notice of the Society.—Mr. T. BRYANT considered that the observation was one which merited careful attention. He asked in what way the casts could be distinguished from those of renal origin.—Professor GREENFIELD had met with four cases in which the urine contained concretions having somewhat the characters of corpora amylacea; the cases occurred in two girls and one young woman, and in one boy seven years of age. The concretions appeared intermittently. In one case he found the concretions in large numbers in the kidney after death; they stained deeply with carmine and magenta, and some with iodine. He mentioned these cases, not as of the same nature as Sir Andrew Clark's, but as worthy, like his, of further investigation.—Dr. J. G. GLOVER asked whether the patient had previously had a well-defined attack of gout.—Sir ANDREW CLARK replied in the negative to the last speaker. The characters of the casts were such as existed in the urine of cases of acute nephritis or acute congestion. A most important diagnostic point was the presence of flask-like bodies attached to the hyaline cylinders. The presence of prostatic trouble, and the fact that it was a healthy urine with the addition of a little albumen, were the other conditions that favoured the diagnosis of the prostatic origin of the hyaline casts. In two other medical men he had had illustrations of the same thing, but in neither of these was the disease so acute. The flask-like bodies were probably moulds of the follicles of the prostate. In the urine of women he always found a large quantity of mucus and veritable starch-granules, which were probably derived from the violet powder of the toilet.

Mr. CLUTTON read the notes of a case of Large Cervical Spina Bifida undergoing Spontaneous Cure. The subject was the younger brother of a patient in whom he had successfully treated a lumbar spina bifida by the glycero-iodine injection, and the particulars of which were reported to the Society in 1862. Both cases were shown as living specimens last November. The mother had had ten children, of which the ninth and tenth were affected as above mentioned. The latter was born in 1885 with a spina bifida in the cervical region of the spine, of which the size and position were demonstrated by means of a photograph. It was six and a half inches in diameter, and rather conciform in shape, with the apex directed upwards. The coverings were thin, but completely enveloped with skin. It could be reduced in size by pressure, but increased again when the child cried. A considerable aperture could be felt in the vertebral arches. It was thought to be a simple running spina bifida, from the fact that there was a perfect cutaneous covering without any ulceration, median furrow, or central depression, that it was translucent in every part of its surface, and that there were no paralytic symptoms. When five weeks old the cyst was found to be much smaller, and its coverings quite soft and flaccid. No treatment of any kind had been adopted, and yet the communication with the interior of the vertebral canal had become occluded. From that time till December it diminished in size, when the child died from causes unconnected with the spina bifida. Mr. Shattock showed the specimen, which was obtained from the post-mortem examination. The posterior part of the cord was involved in the protrusion. The chief part of the latter was constituted by a closed sac of fibrous tissue, situated behind the protruded portion of the spinal cord.—Mr. R. W. PARKER thought that Mr. Shattock's anatomical description went to show that the case was not one of ordinary spina bifida; it could not therefore be used for the purposes of contrasting spontaneous cures with those effected by treatment. As far as the tables of the Spina Bifida Committee went, it would seem that more cures were brought about by treatment than by leaving the cases alone.—Mr. GOLDING BIRD asked what the child died of.—Mr. R. J. GODLEE referred to a case of spina bifida of the upper dorsal region in which there was a scarcely perceptible impulse. Treatment by the iodo-glycerine method led to paralysis of the lower limbs and retention of urine, which was treated by catheterism, on which cystitis developed and the child died some weeks later. Here was a case which seemed most favourable for treatment and yet led to disastrous results.—Mr. J. W. HULKE said that the diagnosis was sometimes exceedingly difficult. He remembered a case in which a slender tubular prolongation connected the sac with the spinal canal; removal was followed by suppuration and death in forty-eight hours.—Mr. J. H. MORGAN said it would be very interesting to know in what the shrinking changes consisted. He well remembered a case of spina bifida of the upper dorsal region under Mr. T. Holmes's care in which there seemed to be almost no connexion between the tumour and spinal canal, yet removal led to immediate syncope and rapid death.—Mr. CLUTTON, in reply, said the child died of some diphtheritic affection. The question was whether it was a pure meningocele or meningo-myelocele, but it was a spina bifida all the same. Spontaneous shrinking was far more favourable than shrinking by treatment. The shrinking was very marked, and the opening between the tumour and the spinal canal or cord must have almost closed, for the impulse on coughing and other signs of like significance altogether disappeared as the shrinkage went on.

Mr. SYMPSON (Lincoln) read notes of a case of Myositis Ossificans, which occurred in a boy aged seven years. He first saw the case on March 27th, 1885, when there was much complaint of pain and tenderness about the right shoulder; a tumour was noticed along the posterior boundary of the right axilla, and another on the left axilla; these growths were larger, more elastic, and nodulated than they were now. There was no history of syphilis. Fresh tumours appeared a month later on the right ilium, and later still over the left eleventh rib.—Mr. J. HUTCHINSON gave a brief report of the conclusions that the Special Committee had arrived at. The case was regarded as a most

remarkable one of myositis ossificans, affecting chiefly the latissimus dorsi and trapezius on both sides, also the triceps on the right side. There was no certain proof of any exostosis independent of the muscles. A remarkable feature was the existence of a "saddle" of bone extending completely across the loins, and preventing movement of the trunk. There was no ossification of muscles on the anterior surface of the trunk. The shoulder-joints were fixed as the result of the ossification in muscles. Another feature that was drawn attention to was the occurrence of ossification in the form of bony lumps or nodules, not in plates and spinous processes, as was the rule in myositis ossificans.

The following living specimens were shown:—Dr. Pringle: Symmetrical Guttate Scleroderma. Mr. Sympson (Lincoln): A case of Myositis Ossificans. A special committee, formed by Mr. J. Hutchinson, Mr. H. H. Clutton, and Dr. W. B. Hadden, was appointed to investigate the latter case. (*Vide supra.*)

MEDICAL SOCIETY OF LONDON.

Treatment of Varicocele.—Lardaceous Hepatic Disease.—Athetosis.

A CLINICAL meeting of this Society was held on Monday last, Dr. W. M. Ord, President, in the chair.

Mr. BOYCE BARROW read a paper on a new method of treating Varicocele by Excision. It was most important to protect the spermatic cord from injury. This was accomplished by separating the diseased veins from the cord, and then two stout needles were passed behind the veins and served as a platform to them, and facilitated the operation. An incision was made from the external abdominal ring to the testicle, so as to allow of retraction of the skin and fully expose the veins. The pins were then removed, and the wound closed and dressed. In ten days or a fortnight the patient left the hospital, the wound healed by first intention, and there was no constitutional disturbance. He considered that this operation would compare favourably with others; it was certainly most radical.—Mr. A. P. GOULD had employed simple division of spermatic veins by means of the galvanic cautery thirty times, and excision of the veins about three times, and he preferred the former operation. He had given up excision, for he had witnessed evil consequences in the practice of other surgeons. He considered that the incision was unnecessarily long. It was, in his experience, difficult to get the scrotal skin to heal by first intention.—Mr. BERNARD PITTS said in one case of excision of the veins he had experienced considerable trouble, suppuration spreading widely necessitating incisions, and greatly prolonging the convalescence. He had also seen much wasting of the testicle, probably as the result of too free excision of parts. He thought the operation was unnecessarily severe for most cases of varicocele.—Mr. SWINFORD EDWARDS had seen symptoms probably due to pulmonary embolism, after a case of excision of the varicose veins. He preferred Ricord's operation.—Mr. J. HUTCHINSON, jun., thought it was somewhat surprising that atrophy of the testis was not more frequent, as the spermatic artery not uncommonly ran in the so-called anterior bundle of spermatic veins.—Mr. BARROW, in reply, thought the size of the wound was of no consequence if the antiseptics were perfect. He used salicylic wool as a dressing.

Dr. ISAMBARD OWEN showed a case of great improvement from Albuminoid Disease of the Liver. The patient was a man, aged twenty-five, who had suffered from gastric symptoms for some months; slight jaundice had been noted for two months, and a tumour in the epigastrium for three months, and frequent micturition was another symptom. The patient was first seen in Nov. 1884. The liver was found to be greatly enlarged, and the tumour was a projection from this. The spleen could be touched below the ribs. The urine had a specific gravity of 1018, and contained bile and about a third of albumen. Lardaceous disease was the diagnosis. There was no history of suppuration or syphilis. An alkaline and iodide of potassium treatment was prescribed; cod-liver oil was also given. The liver gradually diminished in size; the organ was probably now not more than one-third its original size. The gastric and other symptoms gradually disappeared.—Dr. PRINGLE had under his care two similar cases, but in both there was evidence of syphilis many years before. The projection was probably a gumma. He had ordered 25-grain doses of iodide of potassium three times a day, with excellent results.—Dr. ORD said that the presence of an isolated tumour and of tenderness was an unusual circumstance in the case, supposing it to be one of pure amyloid disease. He considered that the disease was probably syphilitic as well as albuminoid. He inquired whether the blood had been examined.—Dr. PURCELL had seen a similar condition of the liver in a nurse who was evidently syphilitic.—Dr. KINGSTON FOWLER considered that external evidence of syphilis was frequently wanting in cases where the syphilitic disease was internal. Regarding the case as one of syphilitic cirrhosis, he said it was rare for the liver to be affected with lardaceous disease before the spleen.—Mr. WALTER PYE suggested a mechanical origin for the albuminuria.—The PRESIDENT elicited that the amount of urine secreted was increased and so negatived this suggestion.—In reply, Dr. ISAMBARD OWEN said that the projection was hardly of the nature of an isolated tumour, but merely the bulging of a generally enlarged liver.

Dr. BEEVOR showed a case of Left Athetosis in a girl aged twenty, which had come on after fits following an attack of whooping-cough when the patient was two years old. The hand was chiefly affected. There was no anæsthesia. She had left-sided fits, beginning with an epigastric aura and twitching of the left hand, and followed subsequently by temporary left-sided paralysis. The lesion was considered to be softening of the cortical centres of the left arm and leg following thrombosis after whooping-cough. Attention was drawn to the presence of athetosis and epileptic fits on the same side, and to the prevalence of the epigastric aura with left-sided fits, which was considered to be a symptom, and not a cause, of the attacks.—Dr. STRETCH DOWSE was glad that Dr. Beevor took exception to the view that the internal capsule was the seat of the lesion in all cases. In his opinion, the cortex might be the seat of lesion. In many cases there was great loss of intellect.—In reply, Dr. BEEVOR said that the number of fits might account for whatever of mental deficiency might exist.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

The Housing of the Working Classes as it affects the Status of Medical Officers of Health.

A MEETING of this Society was held on Dec. 18th, 1885, at 1, Adam-street, Adelphi, the President, Dr. W. H. Corfield, in the chair.

A paper was read by Dr. E. C. SEATON entitled "The Recommendations of the Royal Commission on the Housing of the Working Classes as affecting the Status of the Medical Officer of Health." The recommendations to which the author of this paper alluded are: (1) that medical officers of health should in future appointments be required by sanitary authorities to give their whole time to their official duties; (2) that they should be required to live within a mile of the district which they serve. The object of the paper was to show that in the present state of public opinion, and with areas of local government as at present constituted, such restrictions as those recommended are calculated to retard rather than to advance the progress of that cause which all health officers have at heart—the extension and application of medical and scientific knowledge for the benefit of the public health. The question of the status of the medical officer of health—that is to say, the character of his duties, his relation to his fellow-officers, and his emoluments and tenure of office—is the most important one that has to be considered in relation to the public health. The author has always had doubts of the wisdom of that policy which has led some earnest sanitarians so strenuously to advocate as a general principle that which, for the sake of brevity, might be described as "whole service," except in occasional instances, such as the very large combined areas and perhaps towns of the first magnitude. After quoting the opinion of Dr. Gairdner, Mr. Simon, and Dr. Buchanan in favour of the view that advantage was derived by the medical officer having opportunities for hospital practice, an account was given of a supposed dialogue between two medical officers—the one who argued in favour of the "whole," the other of the "partial service" system. In this dialogue it was argued that

medical officers of health should not assume too much responsibiliy in connexion with legal matters, and that they should avoid appearing in courts of law as advocates or prosecutors, but rather adhere to their proper position as scientific witnesses. It was further pointed out that on such questions as those connected with unhealthy houses, sewage-disposal, water-supply, &c., there was much risk of their coming into collision with engineers, surveyors, architects, and professional chemists (who upon some aspects of these questions were, generally speaking, more entitled to be considered experts), unless they adhered strictly to their own special province as medical officers. Particular attention was also directed to the important duty of a medical officer of health as an adviser of the sanitary authority on all municipal questions affecting the public health, such as hospital accommodation, sanitary administration and police, excrement removal and disposal, water-supply, &c.; and to another equally important duty which devolved on him, of scientifically studying the causes of the origin and spread of outbreaks and epidemics of disease. Dr. Seaton was of opinion that, assuming that the professional arguments on both sides were equally balanced, as a general policy, apart from other considerations, the whole-service system is opposed to the highest public interests, because the public would in the future be deprived of the services of medical experts, such as those who in various ways have so largely contributed to scientific knowledge in the prevention of disease, but who could not be expected to sacrifice everything for a profession in which the usual incomes are very small and precarious, and which, as a profession, may be said to be without prizes; also, because among the towns and districts which have required the whole services of medical experts there are many which are evidently not sufficiently large to need them, as is clearly shown by the fact that the officers appointed for this purpose have undertaken, or had imposed upon them, duties which do not require any professional knowledge, and which might be performed quite as well, and at less cost to the public, by non-professional persons; finally, because the insecurity of tenure makes it very difficult for a medical officer of health, who is cut off from all other means of earning a livelihood, to discharge his duties with sufficient independence, and this want of proper independence would be especially felt in cases where the authority was largely composed of small property owners, who were opposed to sanitary work. In conclusion, he alluded briefly to the proposed restriction with regard to place of residence, and pointed out that such a restriction would interfere with the combination of sanitary districts for the purpose of appointing a medical officer of health, an arrangement which generally worked so well; and further, that in London the facilities for locomotion were such that from central positions medical officers could reach any part of their parishes or districts in the shortest time.—In the discussion which followed, the President, Mr. Armstrong, Dr. C. E. Saunders, Dr. Swete, Mr. W. Blyth, Mr. Lovett, Mr. Jacob, and Dr. Bate took part.

ACADEMY OF MEDICINE IN IRELAND.

Madura Foot.—Milky Fluid in the Peritoneal Cavity.—Rupture of Intercranial Vessel.—Osteomalacia.

AT a meeting of the Pathological Section held on Dec. 4th, 1885,

Dr. E. H. BENNETT exhibited a specimen of Madura Foot which had been presented to the museum of the University by Surgeon Burke, of the Indian Medical Service, a former pupil in the School of Physic and a graduate of the University. The specimen was obtained by amputation for the relief of the disease, which occurred in a coloured woman, an inhabitant of Central India.

Dr. DUFFEY exhibited a specimen of a Milky Fluid removed by Paracentesis during life from the peritoneal cavity of a single woman, aged fifty-two; and also portions of the viscera from her body. He briefly referred to the different forms in which a fluid resembling milk is met with pathologically, and said that he believed many of the so-called cases of "chylous" ascites were so only in name. In Dr. Duffey's patient the fluid was certainly not chylous. The case was one of chronic diarrhœa of five months' duration, during the last six weeks of which there was, in addition, ascites. The abdomen was tapped three times. On each occasion a milky fluid was withdrawn. Erysipelas supervened after the last tapping, and the woman, who had become very weak and emaciated, died. On post-mortem examination the parietal peritoneum was found to be thickened and opaque, and, as well as the costal pleura, sprinkled over with small white fibrous nodules, which were likewise plentifully bestrewed over the greatly thickened omentum and the serous envelope of the intestine. In Douglas's pouch there was a considerable deposit of nodules, which in some places had coalesced and looked like caseous masses commencing to soften. There were enlarged glands in the lesser omentum and in the vicinity of the cæcum. Numerous small ulcers were found in the cæcum itself and adjoining portion of the large intestine; and both segments of the valve were much thickened and ulcerated. The thoracic duct and its branches appeared quite normal. Dr. Duffey believed the case to be one of tuberculosis, but he could not say what was the cause of the colour of fluid, or what connexion, if any, there was between it and the chronic peritonitis. So far as these two circumstances went, the case seemed to support the conclusion recently advanced by M. Letulle (*Rev. de Méd.*, Sept., 1884), to the effect that a chronic inflammatory element is the most constant character in the genesis of such chyliform effusions.—Dr. FOOT said he had a case of this kind in which he tapped the patient four times for effusion into the peritoneal cavity. Mr. Scott analysed the fluid, and found in it 25 per cent. of sugar and a notable quantity of urea, which he expected, as the man was suffering from parenchymatous nephritis and general dropsy. But his limbs and scrotum had to be punctured, which was done without any bad results; and the fluid which issued from these punctures, of which he made about 150, was as limpid as dew. On the other hand, the fluid that came from the peritoneal cavity was like milk-and-water; and similar fluid came up from the man's stomach. By the four tappings twenty-four quarts of this milky fluid were taken from him. Its specific gravity was from 1004 to 1006.—Mr. STORY asked if Dr. Duffey had found any microscopic evidence of the presence of bacilli.—The PRESIDENT remarked that after two or three tappings, the man whose case was the subject of Dr. Duffey's communication had an attack of erysipelas, which assumed a gangrenous character, and perhaps was the cause of his death. The supervention of erysipelas was very rare after tapping for ascites. Where did it start from in the case in question?—Dr. DUFFEY, in reply, said he believed most analyses that had been made of the kind of milky fluid in question had shown the presence of sugar. In his case the fluid had not been examined for sugar. Dr. Foot's case bore out the view that a great many cases of the kind were due to chronic peritonitis. A microscopic examination of a portion of the fluid drawn off at the second tapping showed some endothelial cells and exudation corpuscles. There was no microscopic evidence of bacilli; Dr. Purser and other gentlemen had detected none. But there was a case of convalescent erysipelas in the ward, and in consequence every precaution as to cleanliness of instruments and disinfection was taken. The erysipelas started from the site of the third puncture made in the patient, gradually extended, and in a short time assumed a bluish appearance. There was no vesication, and the erysipelas did not extend into the peritoneal cavity.

Dr. J. K. BARTON made a communication on a Tumour of the Internal Saphena Vein. It was about the size of a pullet's egg, and was evidently formed by an expansion of the coats of the vessel. It was filled with a clot so firm and adherent to the lining membrane that it could with difficulty be separated.

Dr. FOOT exhibited the Heart and Kidneys from a case of Bright's Disease. The kidneys were typical examples of the contracted granular kidney as described by Richard Bright. The heart was hypertrophied, weighing thirty-two ounces, the hypertrophy chiefly affecting the left ventricle. Neither valvular disease nor atheroma of the aorta was present, but the surface of the heart was covered with a regular sheet of pericardial exudation. The chief clinical feature in the case was the presence of persistent hæmatemesis.

Dr. MACSWINEY exhibited the Brain of a Man who had died from Rupture of an Intercranial Vessel. The man, aged sixty, was brought to the hospital that day week in an insensible condition. He was quite unconscious, immovable, and without sign of sensibility. He was a labourer, and was actually at work that day. A few hours

before the fatal attack he complained of pain in his head. That did not deter him from continuing his work, and he was in the act of levelling a wall with a crowbar when he fell. When persons came to his assistance he was conscious and could speak, but was unable to walk; but consciousness and power of speech rapidly left him, and in two hours after the attack, when he was brought to the hospital, he was in the state which he (Dr. MacSwiney) had described. His face was pale and his eyes contracted and immovable, but he had no stertorous breathing. His pulse was feeble and rapid. The sphincter of his bladder was paralysed, and he passed a quantity of urine, which trickled to the floor. His left upper and lower extremities were extremely rigid and almost tetanically contracted. He lived about fourteen hours after his first seizure. After death the brain was removed. The convolutions on the left side were very much flattened, and there was considerable subarachnoid effusion of blood on the surface of the convolutions. The base of the brain was occupied by a very large effusion of blood. It appeared that the blood burst through the arachnoid, and was effused into the arachnoid space. When the blood had been removed, it was found that on the left side there was an aneurysmal dilatation of one of the branches of the internal cerebral artery which had given way. There was a very large hæmorrhagic focus, which had torn through the white substance of the frontal convolutions and excavated a large cavity, which was filled with clotted blood, and the sides of which were formed of projections of lacerated brain substance. The ventricles had not been opened, but he had no doubt that there was blood in them. Arterial hæmorrhage in the brain generally resulted from the rupture of a diseased vessel, and in the present instance the diseased vessel showed the form of degeneration known as atheroma, which was not the most usual form that existed in the arterial dilatations described by Charcot. He had no doubt that the efforts the man was making were the cause of rupture.

Dr. E. H. BENNETT exhibited specimens taken from a patient suffering from Osteomalacia, who had been under his observation for several years before her death, and during the entire period of her disease. The case was exceptional in this, that while the woman was comparatively young, being at her death about thirty-nine years of age, pregnancy had not occurred as the starting-point of the disease, nor were the conditions of life such as could be assigned as the cause. She had lived in the capacity of upper nurse in most comfortable situations and in various climates, in England, Ireland, and in France. The chain of events in the progress of the disease was spontaneous fracture of the left clavicle, after union of this its refracture, a fracture of the shaft of the humerus at its upper extremity, followed at intervals of several months by successive fractures of the same bone in its upper half, each fracture uniting well and in the usual time for healthy bones. During the treatment of the last of these accidents, just as the repair was completed, the shaft of the femur on the same side broke in its upper half as the patient turned in bed. At this time she suffered severe pains in the lower limbs and back, and particularly in the right thigh—such that one began to expect the occurrence of fracture of that bone also. She could not bear the restraint of a Liston splint, and milder means were adopted; but the patient suddenly died from failure of the heart. Her fingers had become remarkably clubbed at the ends, while the nails were corrugated—points which raised a suspicion of pulmonary phthisis, but of this there were no signs during life and no evidence post mortem. The bones, which had been the seat of pain as well as those that were broken, presented a red mottled appearance, and were so softened that a scalpel could easily be thrust through their tissue, even through the shaft of the unbroken femur. The medulla was, however, fatty and free from red colourisation. The kidneys were studded everywhere with fine grains of dull white particles of gritty sand, against which the edge of the knife grated in cutting the cortical and medullary tissues, but there was no free sand or calculus in the hilum, ureters, or bladder. Chemically examined, these grains were found to be composed of mixed phosphate and carbonate of lime—to be, in fact, bone-earth. Structurally they were amorphous. The liver and spleen were free from disease. The heart was very small, thin, and soft, and evidently fatty. Dr. Bennett discussed the relation of this affection to rickets and to senile osteoporosis, pointing out the characters which appeared to him to distinguish them.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

Difficulties of Diagnosis in certain Cases of Cerebral Tumour.

AT the meeting of this Society held on Jan. 1st,

Dr. HALE WHITE read a paper on the Difficulties of Diagnosis in certain Cases of Cerebral Tumour. The author first related particulars of a case in which no cerebral symptoms whatever were known to be present during life, but at the necropsy the presence of a tubercular mass in the cerebellum was quite accidentally discovered. Then full particulars were given of an interesting case of tumour in the frontal lobe. In this patient for a long time, the only symptom was headache, and it was not till a short period before death that the presence of optic neuritis was discovered. The patient died suddenly without the advent of any other than these two symptoms. The next case related was one of a woman, in whom a tumour in the region of the occipital and temporo-sphenoidal lobes existed; it was about the size of a Tangerine orange, and produced no symptoms whatever that could with certainty be referred to its presence. It was concluded from these three cases that tumours might exist in the cerebellum, frontal lobes, and occipital region, and be very difficult of diagnosis. The presence of paralysis of some of the cranial nerves did not necessarily forbid the diagnosis of the presence of a tumour in this region, for if it were of a very great size its pressure might compress the nerves at the base of the skull against the bone. Tumours in the regions just indicated have no special symptoms, such as paralysis; therefore, for their diagnosis we are entirely dependent upon the general symptoms—viz., headache and optic neuritis; vomiting occupying an intermediate position, being partly a general and partly a special symptom of tumours near or in the cerebellum. Even the combination of headache and optic neuritis did not conclusively prove the existence of a cerebral tumour, for a case was brought forward in which both of these symptoms were present, both being due to anæmia, the patient rapidly recovering on treatment with iron; still, the combination of these two symptoms would make one extremely suspicious. The form of headache most likely to be associated with cerebral tumour was next discussed, and it was pointed out how frequently, if not careful, a mistake might be made with myopic patients, who often complained of dimness of sight and headache. The next question raised was as to the means of diagnosing the kind of tumour, but it was pointed out that this was not of so much importance as to diagnose its presence, because one's duty to a patient is always to give large doses of iodide of potassium.—Dr. PURVES moved a vote of thanks to the author, and gave an interesting account of a case in which the diagnosis lay between embolism and hysteria.—Dr. CABLE, in seconding the vote of thanks, related several cases of cerebral tumours.—Dr. ERNEST CLARKE made some suggestive observations with regard to optic neuritis in cerebral tumours.

Reviews and Notices of Books.

English Worthies. Edited by ANDREW LANG, CHARLES DARWIN, and GRANT ALLEN. pp. 206. London: Longmans. 1885.

This is the first of a series which is to include Marlborough, by George Saintsbury; Steele, by Austin Dobson; Sir T. More, by Cotter Morison; and many others. The present volume is an appreciative account of the life and works of the great naturalist, who has been styled the "Newton of Biology" and the "Joshua who led the world of thinkers and workers into full fruition of that promised land, which earlier investigators had but dimly descried from the Pisgah-top of conjectural speculation." Mr. Grant Allen shows, in a good introductory chapter, how the germs of Darwin's great doctrines of the mutability of species and their origin from a common form were sown by Buffon, nurtured by Geoffrey St. Hilaire and Goethe, and largely developed by Erasmus Darwin, by Lamarck, and later by Lyell, till it was fully matured by Charles Darwin,

and appeared in the form of modern evolutionism, which rapidly overthrew the previously dominant views of violent revolutions, cataclysmal changes, and new creations. That Darwin was descended from the Wedgwoods through his mother is well known. The grandson of Erasmus Darwin and of Josiah Wedgwood, it is not surprising that Charles Darwin was an accurate observer and an acute and original thinker. The importance of Darwin's early travels in the voyage of the *Beagle* cannot be over-estimated in their influence on his mind, and in many passages he expresses himself in a manner that show the dawning of his later views. Referring to the calm consideration which Darwin devoted to the materials he brought home from all parts of the world in the *Beagle*, Mr. Grant Allen observes that they give us "in a nutshell the true secret of Darwin's success in compelling the attention and assent of his contemporaries to his completed theory." In the "Origin of Species" he brought together an imposing array of closely serried facts, secured every post in the rear before taking a single step onward, and brought to bear upon every antagonist the exact form of argument with which he was already thoroughly familiar, and most of the facts were drawn from his observations whilst acting as naturalist to the *Beagle*.

Great as was the impetus given by Darwin's researches to the study of animal life, that to botanical work was almost equally strong, and Mr. Allen reminds us that, in regard to the single question of the "Fertilisation of Flowers," Mr. D'Arcy Thompson has collected a list of no less than 814 separate works or important papers bearing on that special department of botany—almost all of them subsequent in date to the first publication of the "Origin of Species"; and the number of workers now engaged in the solution of the problems opened up by that work in this country and abroad is incalculable. Taking Mr. Allen's book as a whole, it may be regarded as a history of Darwinism, rather than as an account or biography of Darwin—a description of the origin and progress of his doctrine, than a history of the individual. It, however, commences a series of volumes that, if followed by others of equal value, promise much entertainment, and are thoroughly deserving, not of perusal only, but of study.

Diseases of the Tongue. By HENRY T. BUTLIN, F.R.C.S., Assistant-Surgeon and Demonstrator of Practical Surgery, St. Bartholomew's Hospital. Pp. 451. Cassell & Co.

As Mr. Butlin remarks in his introductory chapter, there are certain difficulties in carrying out the encyclopædic plan—which he has adopted,—inasmuch as "some of the diseases are of such a kind that each one of them comprises in itself several, or many, different physical conditions of the surface of the organ." In other words, this particular method necessitates a good deal of repetition, and involves much cross-division. Had the procedure usually practised been selected, of describing in narrative form the diseases of which a book treats, rather than making abnormal signs often common to many pathological conditions the cardinal point of dissertation, a good deal of space would have been saved, and the book before us would probably not have exceeded two-thirds its present size. The treatise, however, is written for "practitioners and students of medicine," and the former will be glad of an arrangement which affords them a convenient and ready reference to the phenomena of disease. We do not wish to be captious or hypercritical, but it occurs to us, on careful perusal of Mr. Butlin's work, that a few diseases of rare occurrence are given too much prominence—e.g., "Tongue-swallowing," which some may scarcely have heard of, and most have never seen, takes up five pages. The treatment recommended of the several morbid states of the tongue is thoroughly sound; but here, again, we meet with a good deal of repetition which might to some extent have been avoided. Apart from the objections above raised, we have nothing but praise for Mr. Butlin's Manual. Many chapters are models of concise writing and logical reasoning, and this is especially the case with those devoted to "Carcinoma" and "Syphilis." As regards the latter two we could wish nothing better. The section devoted to "Macroglossia" is another instance of lucid exposition, and shows marked clinical acumen. The book, which is copiously and beautifully illustrated with chromo-lithographs and engravings, will add greatly to the reputation of its author, and be highly prized not less by the busy practitioner than the student.

OUR LIBRARY TABLE.

Lectures on Diseases and Injuries of the Ear. Delivered at St. George's Hospital. By W. B. DALBY, F.R.C.S., M.B. Cantab, Aural Surgeon to the Hospital. Third Edition. London: J. and A. Churchill. 1885.—That another edition of this now well-known book has been called for is of itself evidence that it is popular with the profession. The opportunity of revision has given Mr. Dalby the opportunity of dealing in this edition with the adenoid growths in the pharynx to which Dr. Meyer first called special attention, and which have been shown to be of great importance in connexion with inflammatory changes in the middle ear. The chapter dealing with this matter adds nothing to the common knowledge of the malady, but it supplies an important omission in the previous edition. The subjects of affections of the brain following diseases of the ear and the mode of estimating degrees and varieties of auditory acuteness are more fully dealt with than before. The conversational style originally adopted has been preserved, and indeed it would be impossible to alter this without rewriting the entire book. This style has considerable advantages, chiefly in making the book very readable. It has also, of course, its disadvantages in its lack of precise order and fulness of detail, so that as a book of reference it is less useful than a systematic treatise, especially as the index is very scanty. But of systematic treatises we have enough, and we are glad when we get a readable account of the experience of one who has had large opportunities of observing the diseases and injuries upon which he writes. If Sir W. B. Dalby will add a complete analytical index to the next edition of his work, he will greatly enhance its value to the practitioner.

A Schoolmaster's Retrospect of Eighteen and a Half Years in an Irish School. By MAURICE C. HIME, M.A., LL.D., Head Master of Foyle College, Londonderry.—We have read with interest "A Schoolmaster's Retrospect." All that pertains to education is of the first importance to medical men. The best minds in the profession are engaged in imparting knowledge to others. Any hints given by a practical schoolmaster of large experience cannot fail to interest. Dr. Hime's book is evidently the outcome of a great deal of thought, and of very considerable experience during eighteen and a half years. He discusses a great many topics, some of which we will briefly notice. He is opposed to the idea that the art and science of education are of easy attainment, and offers some very sensible observations on this matter. Corporal punishment and all forms of punishment are condemned. "Corporal punishment appeals only to boys' fear as a motive; and what a wretched motive is fear! How improving and elevating, on the other hand, to appeal to and evoke and strengthen his reasoning powers and his love. Fear can have no terror for a boy except when present with him, and this it clearly cannot always be. Love of right and love of parents, though, can be always present with him. Develop this love in him, and alike before your face and behind your back he will try to do his duty." Cramming finds no advocate in this little

book, but thorough knowledge and a great deal of self-education are insisted on. Dr. Hime finds fault in some particulars with existing methods of education. He upholds the great value of the ancient classics as a foundation in education, and thinks the teaching of science ought to be deferred. In this view he is at variance with a great many modern writers. The education of the senses commences spontaneously at a very early period of life, and this important part of education receives very little development in the present state of school training. The practical teaching of science, it may be said, would require laboratories, which are not to be found in our schools. To this it may be answered that much information in science could be imparted from the study of many common objects which thrust themselves on our attention in every-day life. Dr. Hime holds that every schoolmaster ought to be a medical man. He says: "A schoolmaster ought to understand thoroughly all questions relating to the bodily and mental health of his pupils." Most men who take the trouble of getting the M.B. degree, suggested by Dr. Hime, will probably prefer continuing the all-absorbing study of medicine to undertaking the office of schoolmaster, of the practical duties of which they know little or nothing. It would require years of successful practical work before a man could attain to the enthusiasm for a schoolmaster's work which is possessed by Dr. Hime, as evidenced in the pages of this work. It cannot be insisted upon too strongly that a knowledge of physiology is of the utmost importance, not only to the schoolmaster, but also to every individual. Herbert Spencer, in his work on Education, says: "We infer that as vigorous health and its accompanying high spirits are larger elements of happiness than any other things whatever, the teaching how to maintain them is a teaching that yields in moment to no other whatever. And therefore we assert that such a course of physiology as is needful for the comprehension of its general truths, and their bearings on daily conduct, is an all-essential part of a rational education."

An Index of Surgery: being a concise Classification of the main Facts and Theories of Surgery, for the use of Senior Students and others. By C. B. KEETLEY, F.R.C.S., Senior Surgeon to the West London Hospital, Surgeon to the Surgical Aid Society. Third Edition. London: Smith, Elder, and Co. 1885.—The alterations and additions made in this edition of Mr. Keetley's now well-known book are few and insignificant. In the article on the Surgery of the Ovaries and Uterus Mr. Alban Doran has added notes on Porro's operation and on diseases of the Fallopian tubes. Mr. Juler has also made his article on Ophthalmic Surgery more complete. If used properly—that is, as an accessory to systematic treatises, and not as a substitute for them—the book may be of great benefit to students. The value of the book depends entirely upon the way in which it is used.

Quarterly Journal of Microscopical Science. Edited by Professors LANKESTER, DYER, KLEIN, MOSELEY, and SEDGWICK. No. CI., Nov. 1885.—This part contains five memoirs:—1. J. T. Cunningham: On the Relations of the Yelk to the Gastrula in the Teleosteans; with four plates. In this paper the author gives descriptions, measurements, and illustrations which set forth the peculiarities characterising the eggs of the several species, and also furnishes some explanation of the steps by which the process of development has been produced by the contending influences of heredity and adaptation. 2. Howard Ayers: On the Structure and Function of the Sphæridia of the Echinoidea; with one plate. The author supplies evidence showing that they possess the double function of taste and smell. 3. A. B. MacCallum: The Nerve Terminations in the Cutaneous Epithelium of the Tadpole. Some of the fibrils, he shows, enter the epithelium and terminate in comparatively large bead-like bodies between the cells; others terminate in excessively fine fibrils, of which one, two, three, or even more, terminate in the interior of each epithelial cell near its nucleus. 4. Ray Lankester: On Green Oysters; with one plate. The colour appears to be deposited in certain cells of the gills of the oyster, and to proceed from the Navicula ostrearia, which is ingested by the oyster as food. 5. John Beard: The System of Branchial Sense-organs, and their associated Ganglia in Ichthyopsida; with three plates. This is a contribution to the ancestral history of Vertebrates.

The Journal of Physiology. Edited by MICHAEL FOSTER, F.R.S. Vol. VI. No. 6.—This part contains the following articles:—1. D. W. Samways: A Double Differential Rheotome; with one plate. 2. W. D. Halliburton: On the Blood of Decapod Crustacea; with one plate. 3. S. Martin: The Nature of Papaïn and its Action on Vegetable Proteids. 4. S. Ringer: Regarding the Influence of the Organic Constituents of the Blood on the Contractility of the Ventricle; with one plate. 5. J. G. Adami: On the Nature of Glomerular Activity in the Kidney—a valuable contribution to the comprehension of the process of secretion. 6. F. M. Ellis: Plethysmographic and Vaso-motor Experiments with Frogs; with two plates. 7. W. H. Waters: Some Vaso-motor Functions of the Spinal Nerves in the Frog.

The Journal of Mental Science.—The current number contains the following articles: On the Alleged Fragility of the Bones of General Paralytics, by Dr. T. Christian; Some Points in Irish Lunacy Law, by Mr. Conolly Norman; Design for a Public Asylum for 310 Patients, by Dr. S. Cobbold; On a Recent Visit to Gheel, by Dr. Hack Tuke; An Unusually Heavy Brain in a General Paralytic, by Dr. McDowall; Two Cases of Melancholia, by Alex. Patton, M.B.; Cases in which Hæmaturia and Appearances as of Several Bruises occurred Spontaneously in the Course of an Attack of Maniacal Excitement, and in which after death there was found to be extensive internal hæmorrhagic pachymeningitis, by Drs. Savage and Percy Smith; Clinical Notes on Hæmorrhages, by Dr. Savage; Counter-irritation in General Paralysis, by Dr. Pritchard Davies.

Danielsson and Co.'s Clinical Publications.—We have received from Messrs. Danielsson and Co., of Southampton-buildings, Chancery-lane, some specimens of Charts, &c., which they have published. No. 1 consists of a series of outlines of bones upon which the surgeon can mark the seat and direction of fractures, excisions, &c. Included among them are accurate outlines of the skull, with the cerebral convolutions marked, after Féré. These are very useful, and save much time both in making and in referring to notes of cases. No. 2. A series of clinical figures and outlines, consisting of the surface of the body, back, front, and laterally; of individual parts, as the scalp, face, head, hands, feet, larynx; of the brain, entire and on section; of the retina; of the thorax, thoracic, abdominal, and pelvic organs. They are all carefully done, and are of real service in the record of cases. No. 3. A Pocket Case-book. Each page contains a small temperature chart, with appropriate space for history and description of the case. The book can readily be carried in the pocket, and yet the pages are not too small to be of use for short records of cases. Careful practitioners will find it of real assistance to them.

The Medical Chronicle. Vol. II., No. 12.—This valuable Chronicle still keeps on its way, and maintains its original character. The current number contains three original contributions. The article on Enteroraphy, by Stanmore Bishop, is illustrated with a plate showing clearly the various methods of suturing wounds of the bowel. Dr. Leech's article advocates Paracentesis in Pericardial Effusions. Dr.

T. Harris has an article on a well-worn but still unexhausted subject—the Relative Value of Tests for Albumen in the Urine. The rest of the volume is devoted to abstracts of various papers on Medicine, Therapeutics, Surgery, Midwifery &c., Diseases of Skin, Hygiene, &c. This is, of course, the most valuable portion of the Chronicle, and its chief *raison d'être*.

Gaceta del Hospital Militar.—We have received from Guadalajara, Mexico, the first number of this new medical periodical. Its object is to promote the study of Mexican medical topography by collating and publishing the information acquired by the medical officers of the army respecting the various regions in which they are called to serve, and the diseases peculiar to and most prevalent in them. It is also intended to turn to account the opportunities for clinical observation afforded by the military hospitals. In the present number of the Gazette a return of the military hospital of Guadalajara for the month of October is given, showing the admissions, deaths, discharges, and patients remaining in hospital, but as there is no statement of the strength of the troops to whom the return refers it is of comparatively little value. We trust that in future returns this important information will be given. The present return shows a very great prevalence of venereal diseases, forty-three out of a total of 106 admissions into hospital having been caused by them. A history is also given of an epizootic of acute enteritis and colic among the horses and mules of the artillery immediately after the removal of the company from Guadalajara to Juarez. Among 103 animals there occurred, between Aug. 5th and Nov. 2nd, six cases of acute enteritis and twenty-seven of colic, and of the latter five proved fatal. The disease is attributed to the change of climate and of food, but there appears to be some reason to think that it may have been in some degree due to the quality of the maize, which constituted the most important part of the forage. We wish our new contemporary a long and successful career.

HEALTH OF BOMBAY.

THE nineteenth annual report by Surgeon Davidson, the acting health officer, on the health of Bombay during the year 1884 shows the mortality to have amounted to 27·29 per 1000, that of the males being only 25·29, while of the females it was as high as 34·96. Although this is lower than the death-rate of 1883, it is above the average of the preceding five years. Fevers caused 6830 deaths out of a total of 22,542; pneumonia and bronchitis, 3364; phthisis, 3083; infantile convulsions, 1980; diarrhœa and dysentery, 1716. Cholera did not prevail to any extent during the year, only 576 deaths by it having been reported, mostly between the ages of fifteen and fifty. There were only 18 deaths returned under the head of enteric fever. A series of tables is given showing the number of deaths from different causes among persons employed in different occupations, but as there is no statement of the numbers living of each class, the information is of little value. Much has been done of late years to improve the sanitary condition of Bombay, but it appears from Mr. Davidson's report that there is still great need of legislation in this direction. He states that the Municipal Act affords little or no protection against the erection of most insanitary dwellings, some of which are "dark, unwholesome dens, into which the light of day never penetrates, and which must of necessity breed disease and pestilence. ..... A privy is occasionally built inside a house and overhanging a well; on another occasion a similar structure is built within three feet of a well of drinking-water, and a drain is constructed to carry sewage within a foot and a half of the same well; a privy is built or rebuilt underneath inhabited rooms, and yet, notwithstanding the self-evident danger to the public health arising from this, and that such arrangements are opposed to the most rudimentary principles of sanitation, so accustomed have people in Bombay become to them that I have been gravely informed by otherwise fairly intelligent men that such contrivances are unobjectionable. In such cases it is hopeless to argue and useless to make any comments." The condition of many of the cemeteries is very unsatisfactory; they are overcrowded, and some of them are reported to be in a disgraceful state and a source of danger to the public health. The smoke nuisance is beginning to receive attention in Bombay, and it is hoped that effectual measures may be taken for its abatement. The water-supply, especially of the outlying districts, is very inadequate, and, as a consequence, is eked out from wells, the purity of which is often more than doubtful; but steps are now being taken for an increased supply. Attention is called in the report to the need of some system of medical relief for the poor at their own homes—something similar to the Poor-law Union medical system in England. At present no such provision seems to exist; and the very poor, unless they are able to attend at one of the hospitals or dispensaries, are left, when ill, without medical advice, except during the prevalence of epidemic cholera, when special arrangements are made to provide medical attendance for the people at their own houses. This seems to be a subject deserving of the attention of the municipal authorities. The registration of deaths in Bombay is stated to be still in an unsatisfactory state, and an appeal has been made to the members of the medical profession by the health officer for assistance in improving it by furnishing certificates of the cause of death in cases which they have attended—an appeal which, we trust, will meet with a cordial response.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION AND PAYMENT OF MEDICAL WITNESSES.

AT the meeting of the Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt-court, Fleet-street, on the 5th inst., that portion of the report of the proceedings at the winter assizes at Cork on December 11th, 1885, was read, from which it appeared that Mr. Justice O'Brien had said he had received a letter from Dr. Pierce of Newcastle, County Limerick, who complained of having received only £6 odd for his attendance at the assizes. He stated that he claimed £3 3*s.* a day and 15*s.* each day for expenses, and that he had been allowed but £2 2*s.* without any expenses; so that he had received but half of what he claimed. It was his Lordship's intention to reply to him, stating his opinion that £2 2*s.* a day to a professional man who came from a distant place was a wholly inadequate remuneration. The Treasury were, no doubt, very great people, and of course it was the duty of persons holding official positions not to sanction undue extravagance and expense, but the Treasury must understand that he would not require the services of any medical man from the country at £2 2*s.* a day. He would not sanction it, and he would treat as contempt of court any attempt to dispute the carrying out of his orders by the Crown solicitors.

The reading of the Judge's observations was received with much satisfaction by the members of the Council present, some of whom stated that they had been subpœnaed as witnesses in criminal cases, and had only been paid £1 1*s.* a day, and if kept from home all night, 3*s.* 6*d.* additional, out of which they had to pay hotel-expenses, and for the services of a deputy whilst absent; and a feeling was expressed that the time had arrived when determined resistance should be made to such injustice. It was also proposed that the best thanks of the Council should be given to Mr. Justice O'Brien for his remarks on the case of Dr. Pierce and for his determination to give effect to his views, which, on being put to the vote, was carried unanimously. It was likewise decided that steps should be taken to memorialise the Treasury thereon, and the co-operation of medical members of Parliament was requested in such memorial. It was further proposed and carried that a report of the proceedings of Council and a copy of their resolution should be sent to THE LANCET, *British Medical Journal*, and the *Medical Press and Circular*, and that the editors be urgently requested to support the claim of Poor-law Medical Officers and others to a higher scale of payment when subpœnaed by the Crown in criminal cases.